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ABSTRACT

This report is one in a series of country studies prepared in the framework of the Organisation for Economic Cooperation and Development (OECD) Education Committee activity on changing patterns of finance in higher education. In order to contribute to the OECD activity from the Japanese perspective, the Research Institute for Higher Education at Hiroshima University organized a project called "Social and Economic Changes in Industrialized Countries and Their Challenges to Higher Education." Many experts agree that many of the current problems in Japan's higher education originated during postwar development, when public resources consistently lagged behind the rising social and private demands. Through the unprecedented enrollment expansion of the 1960s, a sharp differentiation developed between the relatively few and protected public institutions and a large number of private institutions with inadequate educational conditions and substantial user charges. Eradication of the sharp disparity between the public and private sectors constituted the major challenge to higher education policy in the 1970s. The developments since 1970 have left Japanese higher education with significant structural consequences, particularly the improvement in financial conditions of the private institutions. The recent Ad Hoc Council on Education called for increased government expenditure on higher education. Statistical information on higher education finance, student support, issues and recent reforms, and prospects in Japan is provided. Appended are tables on the higher education system and government expenditures, finances of higher education institutions, and student aid and student living. Contains 19 references. (SM)

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CHANGING PATTERNS OF FINANCE IN HIGHER EDUCATION

COUNTRY STUDY: JAPAN

This report is one of a series of country studies prepared in the framework of the OECD Education Committee activity on Changing Patterns of Finance in Higher Education. These studies have provided the background information for the preparation of a general report on this topic that will be published by the OECD.

In order to contribute to the OECD activity from the Japanese perspective, the Research Institute for Higher Education (RIHE) at Hiroshima University organised a research project "Social and Economic Changes in Industrialised Countries and Their Challenges to Higher Education", with financial assistance through a Science Research Grant from the Ministry of Education Science and Culture. The members of the research project are: Professors Masao Seki (Representative of the project, and Director of the RIHE), Yoshiya Abe (National Institute of Multimedia Education), Akira Arimoto (RIHE), Kazukimi Ebuchi (RIHE), Shogo Ichikawa (National Institute of Education), Joji Kikuchi (Osaka University), Kazuyuki Kitamura (RIHE), Akira Tachi (National Institute of Multimedia Education), Morikazu Ushiogi (Nagoya University), Masakazu Yano (Tokyo Institute of Technology) and Motohisa Kaneko (RIHE).

The country study has been written by Motohisa Kaneko, Research Institute for Higher Education, Hiroshima University (Japan). The views expressed are those of the author and do not necessarily commit the Ministry of Education, Science and Culture, the RIHE or the Organisation.

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EXECUTIVE SUMMARY

In the past few years educational reform has drawn wide social attention in Japan, and one of its focal points has been higher education. Many experts agree that a considerable proportion of the current problems in higher education originated during its postwar development, where public resources consistently lagged behind the rising social and private demands. Particularly through the unprecedented enrollment expansion in the 1960s, a sharp differentiation developed between the relatively few and protected public institutions and a large number of private institutions with inadequate educational conditions and substantial user charges.

Eradication of the sharp disparity between the public and private sectors constituted the major challenge to higher education policy in the 1970s. Public subsidy to private institutions of higher education was initiated in 1970, and subsequently formalized as the Current Cost Subsidy to private institutions. Under relatively favorable fiscal conditions, it had increased by the end of the 1970s to account for a quarter of the general revenue of private institutions. Since the other government outlays on higher education also showed moderate increases, the total government expenditure on higher education increased over the 1970s from 0.39 percent to 0.56 percent of the G.N.P. If the trend had continued, the role of government in higher education finance should have gained considerably greater significance, eventually altering the pattern of higher education finance in Japan. But by the end of the 1970s the slowed economic growth, coupled with mounting welfare expenditures, forced the government to severely restrain the budget. Under the ensuing fiscal stringency higher education appropriations have been stagnating in nominal values, and declining moderately in real values. After the reversal in trend, the total government expenditure relative to the G.N.P. diminished to 0.45 percent by 1985.

The developments since 1970 have left Japanese higher education with significant structural consequences. Most salient has been the improvement in financial conditions of the private institutions: over the fifteen-year period since 1970, the per-student expenditure increased in real prices by as much as 2.2 times, thus dramatically reducing the disparity between public and private institutions. The increased expenditures, however, have not accompanied corresponding changes in class size, mainly because the private institutions were reluctant to commit to the long-term financial obligations arising from expansion of full-time faculty. The stagnating per-student expenditure in the national institutions, on the other hand, has created increasingly serious obstacles to research and graduate education. Meanwhile, tuition at national institutions was consistently raised in order to reduce the public-private disparity in student charges. Ironically, the private institutions then started increasing their tuitions and the trend continued into the 1980s. Hence, the private contribution to higher education through student charges has expanded from 0.26 percent of G.N.P. in 1970 to 0.43 percent in 1985. Due to inadequate data the effects of tuition increases on equity of opportunity has been unclear, but the increasing financial burdens on families have been obvious enough to cause social concerns.

The recent Ad Hoc Council on Education called for increased government expenditure on higher education. But in order to persuade the public of its effectiveness, there will have to be shifts in the form of government contribution, concomitant with active changes within public and private institutions.

1 INTRODUCTION

In the past few years, educational issues have attracted wide attention in Japan. The social and political significance attached to them was reflected in the establishment of the Ad Hoc Council on Education in 1984, and the extensive media-coverage on its activities for three years. While the scope of the Council encompassed all aspects of Japanese education, some of the particularly intense discussions were reportedly focused upon higher education. Undoubtedly one significant undercurrent beneath the debates over higher education was the pressure of financial stringency and the general movement towards restraining the government expenditures. The thrust of such forces was directed particularly upon higher education for alleged inefficiency in the use of public funds, hence leading to various proposals to reduce the government contribution. On the other hand, it was widely recognized that higher education still constitutes the weakest segment in the Japanese education system and necessitates rather considerable enhancement. Researches commissioned by the Council in fact revealed that in spite of high enrollment rate the qualitative standards of higher education in Japan lag considerably behind those in some OECD countries. Inadequacy in higher education would definitely create considerable obstacles to social and economic development in the future international environment. Moreover, the obvious qualitative disparity among institutions has been one of the factors inducing the excessive competition over entrance to better universities and colleges. In this sense the problems of higher education are also haunting the secondary and, eventually, the primary education. Thus, in comprehending the background of current debates about educational reforms it is essential to examine the making of the current problems in higher education.

Many experts agree that a considerable proportion of the current problems in higher education was formed in the period of postwar development of higher education, when available public resources lagged consistently behind the rising social and private demands. In the postwar educational reform, various post-secondary institutions were transformed into new national universities and colleges. Since most of these institutions lacked adequate facilities, the foremost priority in higher education finance had to be given to their upgrading. In order to secure enough resources for this purpose, the finances of the national institutions were directly integrated in the national budget, and the budgets for each institutions were allocated according to standardized unit-prices. The mechanism still constitutes the basis for financing the national institutions, and has been attracting criticism for its inflexibility. In the 1960s, the policies continued to concentrate the limited resources available for higher education upon qualitative upgrading of the national universities and colleges, rather than upon their quantitative increases. However, the popular demands for the opportunities of higher education started an unprecedented expansion, and the frustrated demands had to be satisfied by expansion of enrollment in the private sector of higher education. By the end of the 1960s the private sector accounted for three-quarters of total enrollment. At the same time, since most of the private institutions were financially dependent solely upon tuition, they had to charge considerably higher amounts of tuition, and yet offered less adequate educational conditions, than the public institutions. The quantitative predominance of the private sector, together with the sharp qualitative disparities between the public and the private sectors, thus created one of the most basic characteristics of the Japanese higher education system.

Negative consequences of these developments became increasingly serious, and were eventually exposed through the higher education "crisis" around 1970. The various reform proposals prompted by the crisis, including those by the governmental Central Council on Education, dealt basically with two issues - the form of control and finance of the national institutions, and the public-private disparity in educational quality and student charges. In the subsequent years, particularly significant policy changes were made concerning the latter issue. Initially started in 1970 as an emergency relief to deteriorating financial conditions of the private institutions, government subsidy to private institutions was subsequently formalized in 1975 as the Current Costs Subsidy to private institutions. By the end of the 1970s, it came to account for a quarter of the revenues of the private institutions. Still in other areas, during the 1970s the government took the policy of gradually expanding the national universities and colleges in the regional areas, and started establishing "new concept" universities. If these policies had continued, the role of government contribution in higher education finance would have substantially expanded, eventually converting one of the basic characteristics of Japanese higher education. Such polices, however, were made possible only within the context of the general movement in the 1970s towards greater social and welfare spending. By the end of the 1970s the fiscal condition shifted drastically due to the accumulating deficit, thus forcing the government to severely restrain its expenditures. Since then to the present the amount of government appropriations on higher education have been stagnating in nominal prices, and declining gradually in real prices.

Hence, it may be possible to view the changes in higher education policy since 1970 as the outcome of two competing forces: on the one hand, there was an orientation towards gradual expansion of public contribution; on the other hand, there was the countering force of the constraint on available public resources which, after being relaxed in the 1970s, regained decisive influences in the 1980s. From this view-point it appears as if the balance between the two forces has drawn a full circle and returned to its previous state in the beginning of the 1970s. In fact, the central issues at the beginning of the 1970s still remain at present. Nonetheless, it would be too simplistic to assume that the structure of higher education finance has remained unchanged over this period. A critical factor in this regard was the behavior of private institutions. Despite the Current Cost Subsidy, the private institutions started substantial increases in student charges in the mid-1970s, and increases have continued into the 1980s when the Current Cost Subsidy stagnated. Due to the increases in student charges as well as the Current Cost Subsidy, the financial conditions of the private institutions have shown profound improvement over those at the beginning of the 1970s. Consequently per-student expenditure in the private institutions has increased substantially, dramatically reducing the differences from those at the public institutions. At the same time, the tuition at the national universities has been raised constantly and substantially. Hence, over the period since 1970 the public-private disparity has been diminished. These and other developments have left the higher education system with structural consequences that are arguably of comparable magnitudes to those in the previous periods, but very different in nature.

The Ad Hoc Council on Education issued its final report in 1987, but stopped short of proposing specific policy reforms concerning higher education. The lack of concrete proposals reflect not the absence of issues, but rather the seriousness and complexity of the current problems concerning higher education and its finance. The present report aims at contributing to the understanding of these complex issues by evaluating the recent changes in government policies on higher education finance, the behavior of higher education institutions in response to it, and their structural consequences on the higher education system.

The subsequent sections of the present report are organized as follows: the following Section 2 will outline the basic structure of higher education in Japan and its finances. Section 3 will deal with a particular part of higher education finance - student support. In section 4, the dynamics of the changes in higher education finances since the beginning of the 1970s, and their consequences will be examined. In Section 5 some speculation will be made as to the prospect of higher education finance in the coming decade. A short selected bibliography will be presented in Section 6. The relevant data are summarized in the Appendix Tables in Section 7.

2 OUTLINE OF HIGHER EDUCATION FINANCE

This section delineates the outline of the higher education system in Japan, the amounts and flow of government expenditures on higher education, and the finances of public and private institutions.

2.1 THE HIGHER EDUCATION SYSTEM

2.1.1 The Higher Education System and Institution.

At the tertiary level the Japanese education system consists mainly of the following four categories of institutions:

(i) four-year Universities and Colleges,
(ii) two-year Junior Colleges,
(iii) fourth and fifth grades at Technical Colleges, and
(iv) post-secondary courses at Special Training Schools.

All of these institutions or courses are legally mandated to be chartered by the Ministry of Education, Science and Culture (MOESC hereafter) and require twelve years of primary and secondary education before admission, implying that entrants have to be 18 years of age or older.[1] Among these, institutions belonging to categories (i) through (iii) constitute the higher education system in a strict sense, while (iv) form a segment comparable to post-secondary education in some other countries.

Four-year universities and colleges (both called *Daigaku* in Japanese) constitute the core of higher education in Japan. As of 1987, there were almost five-hundred institutions of this type, enrolling in total 1.9 million students (Appendix Table A-1). Of these institutions about two-thirds (287) offered graduate courses where 54 thousand students studied for a Master's or Doctor's degree. Graduation from under-graduate courses requires four years of course study, except for the case of Departments of Medicine or Dentistry which demand six years.

Two-year Junior Colleges (*Tanki Daigaku*), which tend to be smaller in size, numbered in 1987 more than five-hundred and enrolled 437 thousand students. With student bodies predominantly female (90 percent), most of these institutions offered terminal education in non-technical subjects such as Literature or Home Economics. Unlike the case of Junior College in the United States, transfer from the two-year institutions to four-year institution for a Bachelor's degree is exceptional.

Technical Colleges (*Koto Senmon Gakko*) admit graduates from junior high schools and require five years before completion. Education in the fourth and fifth grades are therefore

1 Not included here are proprietary schools (Kakushu Gakko) that do not quality for Special Training College, and the Occupational Training Centers administered by the Ministry of Labor or by the local governments.

considered to be the equivalent of the first two years of higher education. Most of these institutions concentrate on technical and engineering subjects. The total enrollment of these institutions is minor (less than 1 percent) relative to that in the entire higher education system.

Special Training Schools (*Senshu Gakko*), on the other hand, constitute a fast growing segment in Japanese higher education. In most cases these institutions were originally proprietary schools offering various types of training and, after amendment of the School Education Law in 1976, received charter from the Ministry of Education. The post-secondary (*Senmon Katei*) course, one of the three courses offered by Special Training Schools, requires a High School diploma for admission. Most of these institutions provide occupational and technical training such as computer programming and foreign language interpretation. Reflecting the diversity of offered training, the curriculum and the years required for completion vary to a large extent. Over the last decade, Special Training Schools showed a remarkable growth; now, with the enrollment in their post-secondary courses totalling almost half-million, they constitute the second largest segment of the higher education system.

The new entrants in SY 1986 numbered 437 thousands for four-year institutions, 206 thousands for two-year institutions, and 248 thousand for the post-secondary courses of Special Training Schools. Compared to the size of population that reached age 18 in this year, these represented respectively 23 percent, 11 percent and 14 percent. This implies that about half of the young age-cohort chose some form of post-secondary education and training. The enrollment ratios for four-year and two-year institutions, after having risen dramatically in the 1960s; have been stagnating since the mid-1970s. The single salient change over the last decade was the steady increase in the proportion of high-school graduates going to the Special Training Schools.

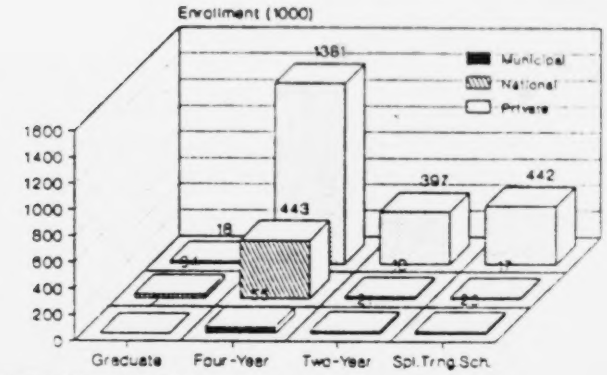
2.1.2 Control of Institution

From the standpoint of control, or the subject of establishment and financial support, the Japanese institutions of higher education are divided into into three categories:

(i) National Institutions,
(ii) Municipal (Local Public) Institutions, and
(iii) Private Institutions.

The sizes of enrollment by type and by control of institution are compared Figure 1 below.

FIGURE 1
Enrollment by Type and Control
of Institution, SY 1987



Source: Appendix Table A-1

The ninety-five national universities and colleges, though enrolling only a small proportion (one-fourth) of enrollment among the four-year institutions, have played significant roles in Japanese higher education. They include some of the most prestigious universities with histories going back to the Meiji period, and tend to be highly selective in admission of students. The list of these national institutions is specified by a clause of the School Education Law, and establishment of a new institution requires its revision by the Diet. Most of the faculty and administrative staffs in these institutions are employees of the national government. The presidents of these institutions, as well as the faculty members, are officially appointed by the Minister of Education, Science and Culture, though the actual process of selection is by convention determined among the faculty. Selection and appointment of most managerial staffs is undertaken, either directly or indirectly, by the MOESC. Each national institution is governed based on the principle of academic freedom; significant decisions have to be made through university council (*Hyogikai*) at the institutional level, or in Departmental Faculty Conference (*Kyoujukai*) at the departmental level. Finance of the institutions, however, is closely supervised by the MOESC.

Municipal, or local public, institutions are established and financed by various levels of municipal governments, mostly Cities and Prefectures. As of 1986 there were 37 four-year, and 53 two-year institutions belonging to this category. Since most of these institutions are small in size, their enrollment accounted only for 3 percent among the four-year, and 5 percent among the two year-institutions. The systems of governance and finance in these institutions tend to be similar to those of the national institutions.

Private universities and colleges constitute by far the largest segment of the higher education system. In 1986, there were 342 private four-year institutions enrolling 1.4 million students, or 72 percent of the total under-graduate students in four-year institutions. Private two-year institutions numbered 470, and enrolled almost four-hundred thousand students, or 91 percent of the two-year institutions. Altogether, the private sector provided three-fourths of the places for higher education. Reflecting the large number of institutions, these institutions present an enormous diversity in prestige and selectivity. While a few private institutions boast of histories and prestige comparable to the leading national universities, some others - particularly the two-year institutions - suffer from difficulties even in securing qualified students. Most of the private institutions are governed and financed in the form of School Juristic Person, a legal status granted by the MOESC. With this status, the institutions are prohibited from making profits, but are assured exemption from corporate or other taxes. The ultimate power of decision-making of the School Juristic Person rests upon its Board of Directors, which is usually elected from faculties, graduates, and other parties. Actual processes of governance, however, differ greatly from one institution to another. In large and prestigious universities, faculty appointments and other important decisions tend to be made through faculty meetings, while in other institutions the Board of Directors or the President would have greater authority.

2.1.3 Public-Private Differentiation

As demonstrated above the Japanese higher education system comprises a large private sector, which by itself constitutes the most conspicuous difference from the other OECD countries. Equally important, there are significant differences between the two sectors with a few aspects.

An obvious difference lies in the distribution of students by subject-fields in the two sectors (Appendix Table A-3). While the national institutions present high concentration on Natural Sciences, Engineering and Education, the private institutions tend to have large proportions of students in Humanities, Social Sciences and Home Economics. In 1987, of all the students majoring Social Sciences in four-year institutions almost 90 percent are in private universities. The share of the private sector in Natural Sciences and Engineering, on the other hand, are 56 and 68 percent respectively. Private institutions tend to concentrate on fields where per-student costs are relatively low.

The contrast between the two sectors is also clear with respect to enrollment of graduate students. Appendix Table A-1 shows that of the approximately 54 thousand graduate students in 1984, two-thirds were enrolled in the national or municipal universities or colleges with the remaining one-third in the private institutions. It may be recalled that the public-private ratio for under-graduate enrollment was exactly opposite - one to two. Public, particularly national, institutions are clearly oriented towards graduate education relative to the private ones. The difference also indicates a heavy emphasis on research in national universities and colleges.

2.2 GOVERNMENT EXPENDITURES AND THEIR FLOW

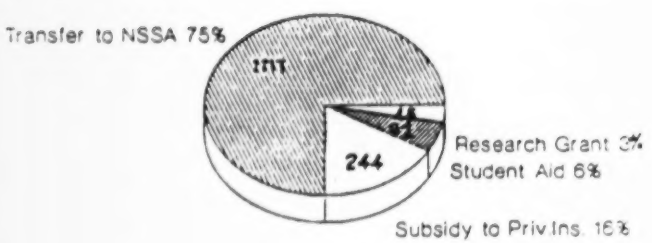
2.2.1 Government Expenditure

The public expenditure on higher education is provided chiefly by the Ministry of Education, Science and Culture (MOESC). In the national budget, its contributions to the finance of higher education are channelled mainly through the following four expenditure items:

(i) transfer to the National Schools Special Account;
(ii) Current Costs Subsidy to Private Schools;
(iii) Science Research Grants; and
(iv) lending to the Japan Scholarship Foundation.

The composition of these expenditures in the budget for FY 1987 is presented in FIGURE 2 below, and in Appendix Table A-4.[2]

FIGURE 2
MOESC Appropriation for Higher Education
FY 1987



Source: Appendix Table A-4
Note: Amounts in Billions of Yen

2 A Fiscal Year (abbreviated FY hereafter) in Japan starts on April 1, and ends on March 31 in the following calendar year. The same convention applies to School Year (SY).

2.2.2 The National Schools Special Account

Transfer to the National Schools Special Account (NSSA hereafter) is currently the major means for the national government to support the national institutions of higher education. It also is the largest expenditure item of public expenditure on higher education. In FY 1987 the transfer amounted to ¥ 1,111 billions, accounting for 75 percent of the major government expenditure on higher education.[3]

Special Accounts are budgetary units that, together with the General Account, constitute the national budget. Many of the Special Accounts are set out for the services of the national government that involve user charges. Given this status a Special Account is allowed to retain the income from its services and spend it for its own activity. It is also possible to save a limited amount of surplus for use in later periods. The finance of the national institutions of higher education was transferred in 1964 from the General Account to form the NSSA, in order to allow for the independence and flexibility. Nonetheless, a Special Account of any kind remains in principle as a subdivision of the national budget, and has to be approved every year by the Diet and executed by the government. The NSSA is no exception; its budgeting and disbursement of the NSSA is governed by the Ministry of Finance and the MOESC.

2.2.3 Current Costs Subsidy to Private Universities and Colleges

The government subsidy to the current expenditures in private universities and colleges in FY 1987 amounted to ¥ 244 billions, or 17 percent of the government contribution to higher education. The subsidy is channeled, together with the subsidies to private institutions at lower levels, through the Japan Private School Promotion Foundation.

Substantial national subsidies to private institutions for their current expenditures started in 1970. In 1975 the Private Schools Promotion and Assistance Law was enacted to allow the government to contribute to the private institutions of higher education the amount not exceeding half of the current expenditure. Since the provision did not specify any obligation on the part of the government, the actual amount allocated to the subsidy fund is determined by the government every year. The development of the Current Costs Subsidy will be discussed in Section 4.3 below.

In the actual process of distribution, the Japan Private Promotion Foundation first estimates, according to a pre-determined formula, the total current expenditures of the applying private institutions. At the same time, the educational condition of the institution is measured with one or two simple indices - such as the size of actual relative to the standard enrollment, or the size of full-time faculty relative to actual enrollment. Based on the indices a proper value is found in a table of "coefficients" that represents the proportion of the current costs to be subsidized. The amount of subsidy is obtained through multiplying the estimated total current cost by the particular

3 The amount includes the wages for the faculty and administrative staffs, who are all government employees.

value of coefficient. The table of multiplication coefficients thus functions as an incentive system to encourage changes desired by the Ministry of Education. The table is also adjusted to account for the total amount of government appropriations.

2.2.4 Science Research Grants

Science Research Grants constitute the major vehicle for the national government to provide financial support for research activities in addition to direct institutional supports. In FY 1987, the total government expenditure for this purpose amounted to ¥ 46 billions, or 3 percent of the total national expenditure for higher education.[4] It should be noted that this amount does not include the direct expenditures on various types of research institutions supported by the MOESC or by other branches of the national government.

These grants are primarily given to the research projects undertaken in institutions of higher education or in academic research institutions. Qualified researchers may apply to the MOESC for grants. If accepted, a typical grant would encompass one to three years. The applications are reviewed in appropriate selection committees appointed by the Japan Academic Council for selection. The selected projects are then administered by the MOESC. The awarded grant is in principle administered by the institution that the researcher belongs to, and is subject to auditing by the MOESC and by the governmental Administrative Management Agency.

In FY 1986 there were about 51 thousands applications for new grants, and 14 thousand projects were awarded grants, implying that on an average about one-fourth of applications were accepted.[5] The awarded grants were distributed heavily among the national universities and colleges, which accounted for 72 percent of the total grants (Appendix Table A-8). The distribution, however, roughly corresponded to the percentage of the national institutions in graduate student enrollment.

Table A-8 also indicates that the number of Science Research Grants have increased substantially over the last decade, from 9 thousands in 1976 to 16 thousands in 1986. This implied that the number of awarded grants per qualified researcher increased from 0.08 to 0.12 over the same period. At the same time, however, the demand for the grant has increased substantially. In consequence the chances of success among applicants have not shown appreciable changes in the past decade.

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4 This amount represents the budget item of Science Research Subsidies, which includes Subsidies to Publication of Research Outputs as well as the Science Research Grants.

5 The awarded grants include continuation from previous fiscal years.

2.3 INSTITUTIONAL FINANCES

2.3.1 Financing of National and Municipal Institutions

As noted above, the finances of all the national universities and colleges are jointly managed within the framework of the National Schools Special Account (NSSA). Revenues and expenditures of the NSSA in 1987 is presented in Appendix Table B-1.

Of the total revenue of about ¥ 1.8 thousand billions, the largest source was the transfer from the General Account (¥ 1,111 billions), which alone accounted for 63 percent of the total. This amount represents the net subsidy from the national government. The incomes from sales of services provided an additional 29 percent, which includes revenues from the attached hospitals (¥ 357 billions, or 20 percent) and the tuition and other student fees (¥ 154 billions, or 9 percent). On the expenditure side, 59 percent (¥ 1,044 billions) was specifically assigned to the expenses of the national schools, which are mostly the national universities and colleges. The attached hospitals (¥ 415 billion) accounted for another 24 percent, and the attached research institutes (¥ 120 billions) for 7 percent. Of the expenditure on the National Schools, about three-quarters (74 percent) went to Administrative Costs including wages and salaries

Because of the construction of the NSSA, it is impossible to separate precisely the income and expenditures spent for education and research in national universities and colleges. It could by safely assumed, however, that about ¥ 1 thousand billions was spent in 1987 for education and researches in national universities and colleges. About 15 percent (¥ 154 billions out of ¥ 1,044 billions) of this expenditure is considered to have been financed by the student charges, and the remaining 85 percent (¥ 890 billions) by the subsidy from the national government.

2.3.2 Financing of Private Institutions

Finances of private institutions are characterized by their heavy dependence upon tuition charges. As Appendix Table B-3 indicates, the student charges and miscellaneous fees of the private four-year and two-year institutions in FY 1985 amounted to ¥ 1,257 billions, which accounted for 46 percent of the total revenue. For four-year institutions, 65 percent of the general revenue came from various kinds of payments from the students.

The Current Costs Subsidy from the national government ranked second as the source of income, accounting for 10 percent of the total revenue of four-year private institutions, or 15 percent of their general revenue. Seen longitudinally (Appendix Table B-4), the share of public subsidy in general revenue increased from an almost negligible level in the late 1960s to a peak of 24 percent by 1979. Since then, however, the total amount allocated to the subsidy stagnated in the face of the increasing size of total revenue and expenditure. As a result, the share started to decline in the 1980s. The trend of decline appears to continue to the present.

On the expenditure side, faculty compensation that once accounted for 40 percent of the total expenditure has gradually decreased its share over the past decade. Nonetheless, the share of wages for administrative staff and miscellaneous wage costs have steadily been increasing. Thus the total wage cost still accounts for 65 percent for the total current expenditure. It deserves attention, however, that the expenditure for education and research has increased in the past decade. A more detailed account of the changes in expenditure will be found in Section 4.3.

2.3.3 Per Student Expenditure by Field of Study

Appendix Table B-5 presents estimated per student expenditure in four-year institutions by field of study and by type of control. The estimation was made through dividing the total amounts of expenditure (current and capital) by the corresponding numbers of students. Both under-graduate and graduate students were included in the basis of calculation, but no weights to account for the difference were attached.[6]

The estimates indicate that there are substantial variations among the fields of study. Medicine and Dentistry are the most expensive fields: per student cost amounted to ¥ 3.5 million in the national institutions, and ¥ 5.2 million in the private institutions.[7] Social Sciences, on the other hand, represents the least costly - less than ¥ 0.9 million in the national institutions and ¥ 0.7 million in the private institutions. The fields such as Humanities, Natural Sciences, Engineering, Agriculture, Pharmacology and Nursing tend to rank between these extremes.

There are also substantial differences in unit costs between the public and private sectors. On an average, the per-student expenditures in the national institutions are about one-third greater than those for the private institutions. This is partly due to the relatively high proportion of private enrollment in the social sciences departments, which are least expensive among all departments. But it is also because the per student expenditure are in general greater in the national institutions than in the private institutions, excepting for the case of Medicine and Dentistry. Particularly profound public-private differences are found with Social Sciences (31 percent) and Engineering (35 percent). It should be remembered that, because of the method of estimation, the average expenditures for the national institutions may be upwardly biased as an indicator of the costs spent for under-graduate students. Nonetheless, it appears undeniable that there remain substantial differences in the resources spent for each student between the national and private institutions.

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6 Since the national universities and colleges enroll large number of graduate students, this method may result in over-estimation of the costs for under-graduate students in the national institutions relative to the private institutions particularly in the natural sciences.

7 The estimated amount for the private institutions is probably exaggerated due to inclusion of the costs in attached hospitals.

3 STUDENT SUPPORT

This section delineates the outline of the major schemes of financial support to the students (Subsection 3.1), the administration and selection process of the Japan Scholarship Foundation programs (3.2), and the relation of the loan programs to the economic life of students (3.3).

3.1 FINANCIAL AID SCHEMES

3.1.1 Financial Aid Programs

Major sources of financial assistance to the students in higher education in Japan include the following:

(i) Japan Scholarship Foundation,
(ii) private foundations,
(iii) individual universities and colleges,
(iv) various levels of local governments,
(v) business corporations, and
(vi) individuals and other sources.

The Japan Scholarship Foundation is financed by the national government, and its programs provide the core of student aid. It is estimated (Appendix Table C-1) that in 1983 the Japan Scholarship Foundation programs accounted for 77 percent of the financial aid received by under-graduate students in four-year institutions. The corresponding share was 84 percent for graduate students and 73 percent for the students in two-year institutions. Details of the programs will be discussed in the following subsection.

Besides the Japan Scholarship Foundation, there were in 1983 some three thousand organizations that offered some form of financial aid to students at various levels of education.[8] Private foundations numbering more than eight-hundred provided the second largest source of financial assistance, accounting for 7 percent in total amount at the under-graduate level. Individual universities and colleges constitute the third largest source, accounting for almost the same share as the foundations. A part the institutional programs were financed by the funds from the Private Education Promotion Foundation. In FY 1987, the foundation set aside ¥ 537 millions in the Current Costs Subsidy specifically for this purpose, and also made loans of about ¥ 1,900 millions at an annual interest rate of 4.9 percent. Almost twelve-hundred local governments at various levels set up their own scholarship programs in 1983. They tend, however, to concentrate more on lower levels of education. At the higher education level, their programs accounted for 9 percent of the loans given to students in two-year institutions, and for 4 percent in the four-year institutions.

8 MOESC, Report of the 1983 Survey on Scholarship Programs, Tables A and B.

As described in detail below, all of the Japan Scholarship Foundation programs take the form of loan rather than grant. Among the other programs, about two-thirds are either loans or mixtures of loan and grant. This tendency is particularly strong among the private foundations. On the other hand, the programs managed by individual universities and colleges present a greater proportion of genuine grants.

3.1.2 Japan Scholarship Foundation Loans

The Japan Scholarship Foundation (J.S.F.) is a public organization established specifically by a particular law with the purpose of providing financial assistance to students in need. The scope of assistance include secondary as well as post-secondary levels of education, but the following description will concentrate on the post-secondary programs. Currently, the Japan Scholarship Foundation programs consist of two types of loans: Category I Loans, which entail no interest in repayment; and Category II Loans, with fixed rates of interest. Monthly amounts of the loans are summarized in Appendix Table C-2.

The free-interest Category I Loans constitute the basis of the J.S.F. programs. Except for under-graduate students in four-year or in two-year institutions, they still are the only types of available loans. In SY 1986 graduate students at the Master's level received a monthly flat rate of 69 thousand Yen, and those at the Doctor's level 80 thousand Yen. Assuming the exchange rate of ¥ 144 for U.S.$ 1, these translated into annual amounts of about $ 6 thousands and $ 7 thousands respectively.[9] Under-graduate students are applied one of the four fixed rates, depending upon the control of institution (national-municipal or private) that the student is attending and upon the distance from home (living at home or away from home). In SY 1986 the monthly rates applied to the students in four-year institutions varied from ¥ 26 thousands for those attending national or municipal institutions and living in home to ¥ 45 thousands for those attending private institutions and living out of home. Until 1983 the Category I loans were further divided into two classes, Regular and Special, with the latter given higher rates. These two classes were consolidated into single one in 1984, when the Category II loans were introduced.

The Category II loans were created in 1984 to extend the opportunity of receiving loans particularly among under-graduate students. These loans require interests to be added in repayment, but the required conditions for eligibility are more lenient than the Category I loans. In general the monthly amount of loans available for the students in four-year or two-year institutions are the same as the corresponding ones in Category I. The interest rate applied to these loans made in 1986 was 3.0 percent per annum. Students in private institutions who are majoring in Medicine or in Dentistry may apply for supplementary loans of either ¥ 40 thousands or ¥ 80 thousands per month. Similarly, those studying Pharmacology may apply for additional ¥ 20 thousands. These supplementary loans entailed 6.5 percent interest.

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9 The exchange rate is the average for the year 1987.

3.1.3 Finance of the Japan Scholarship Foundation

The Japan Scholarship Foundation finances the funds for loans mainly from three sources: borrowing from the General Account of the national government, collected repayment of past loans, and borrowing from the Fiscal Investment and Loan Funds.

Appendix Table C-4 indicates that the borrowing from the General Account constitutes the basis of the funds, accounting for 54 percent of total revenue in FY 1986. Although this amount of ¥ 74 billions is formally termed as "borrowing," for it would be eventually lent to individual students and repaid in future to the Foundation and theoretically to the Government, it functions in effect as a subsidy from the government. The repayment of loans from the past recipients provided another 29 percent of revenue. Borrowing from the Fiscal Investment and Loan Fund was introduced with revision of the Japan Scholarship Fund Law in 1984 as a primary source for the Category II loans. The Fiscal Investment and Loan Fund, governed by the Ministry of Finance, draws its capital from the Postal Savings and the National Pension Fund and other sources, and makes loans to public activities given policy priority. The margin between the lending interest of the Category II loan and the repayment interest to the Fund is subsidized from the General Account.

Over the last decade the amount of the borrowing from the General Account stagnated, which caused a significant decline in its share among the other sources of funds. The loss was partly offset by increased income from repayment. But, the major factor that compensated for the decline was the introduction of the borrowing from the Fiscal Investment and Loan Fund. After two years since its introduction, it has already accounted for 17 percent of the revenue.

3.2 DELIVERY OF THE J.S.F. LOANS

3.2.1 Delivery Process of the Japan Scholarship Foundation Loans

Selection of the recipients of the Japan Scholarship Foundation loans for higher education is made at two levels: pre-enrollment selection, and post-enrollment selection. In the former, high school seniors apply for Category I loans on the presumption that they would advance to higher education. Selected students at this level are called "reserved" recipients, and in FY 1986 they accounted for 19 percent of the total new recipients. In the latter, students apply for a Category I or II loan after enrolling in an institution of higher education.

In a typical fiscal year the actual process that the Japan Scholarship Foundation takes to determine and deliver the loans involves the following process: (i) The Japan Scholarship Foundation determines from the available funds the number of loans to be made in the particular fiscal year. The total number of loans is then allocated between pre-enrollment selection and post-enrollment selection, and then to individual institutions. These are senior high schools in the case of pre-enrollment selection and institutions of higher education in the case of post-enrollment

selection. (ii) In the second step, each institution through its own method of selection would make a list of recommended students. Usually, the list does not exceed the number of allocated loans. (iii) The Japan Scholarship Foundation makes its own examination on the recommended students, although it is unusual that the recommended students are rejected at this stage.

In the process, individual institutions play a critical role in selecting recipients. Since the method of selection is in principle entrusted to the institutions, the actual standards adopted may vary by institution. The process of post-enrollment selection in a typical national university - "University A" - will be described below.

3.2.2 Selection Process and Standards

* In SY 1987, University A was allocated by the Japan Scholarship Foundation a total of about three-hundred Category I and one-hundred Category II loans. The selection process started, as in other universities, in the beginning of the academic year by inviting applications from students. The students could submit at this stage applications for both Category I and Category II loans. There were about nine-hundred applications among a freshmen class of about three thousands.

When the applications were collected by a Scholarship Section in the administration, they were first examined to check if they satisfied the minimum conditions set by the the guide-lines of the Japan Scholarship Foundation. The conditions were set mainly with respect to academic achievement and urgency of economic needs, which were respectively evaluated by the applying student's average grades and the family income level. The family income level for each student for this purpose was computed by subtracting from the actual annual income the possible deductions to allow for the differences in family size and other factors. The conditions for the Category I loans are more rigorous than the Category II, and some students found unqualified for the former may qualify for the latter. Out of the nine-hundred applications in this university, almost six-hundred were found eligible for the Category I loans and, among the remaining three-hundred, more than two-hundred were eligible for Category II.

Since the eligible applications far exceeded the number of allocated loans, the applications had to be processed through second-stage selections. Selections at this stage were undertaken by the selection committees of the academic departments where the students belong. The committee members were appointed among the faculties. The scholarship section prepared lists of the applicants ranked primarily in order of the evaluated economic need. A composite index of economic need and academic achievement was also computed for each student. Based on these information, the scholarship committee determined the list of recommended applicants for Category I. Emphasis was given to economic needs, but consideration on individual cases was also taken into account. The name of students who failed to be recommended but still qualified for the loans were then included in the list of candidates for the Category II loans, and a similar procedure was taken to determine the list of recommended applicants. The institutional lists were then sent to the Japan Scholarship Foundation. Most of the recommended applicants were given the loans.

3.2.3 Delivery and Repayment

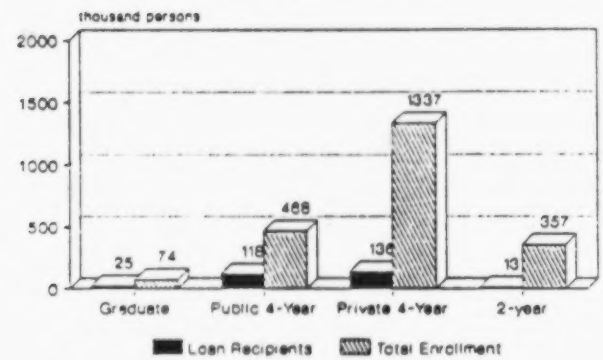
The delivery of loans is made usually by transfer to the student's bank account. During the term of payment, the students are monitored about their academic achievement. Poor achievement may result in revocation of the recipient status. Repayment has to start in principle in the sixth month after graduation, and end within twenty years. There are, however, minimum annual installments, and the average length for completing repayment is about eleven years. Defaulted or delayed repayment accounted in 1986 for 13 percent of the total repayment. By employing strict recovery procedures, the past decade saw a significant decline in this rate. Graduates who entered into the teaching professions, as well as those employed in specified research institutions for public purposes, are exempted from repayment after a few years of service.

3.3 AID PROGRAMS AND STUDENTS' LIVING

3.3.1 Chances of Receiving Financial Aid

In FY 1986, about 200 thousand under-graduate students in four-year institutions received Category I loans from the Japan Scholarship Foundation, and another 54 thousand Category II loans (Appendix Table C-3). These represented respectively 11 percent and 3 percent of the total under-graduate enrollment in four-year institutions. Altogether, 14 percent of the under-graduate students could benefit from the J.S.F. loans. Similar comparisons indicate that the chances of receiving a loan were substantially higher for graduate students (40 percent) or the students at Technical Colleges (18 percent), but substantially lower for students in two-year colleges (4 percent) or in Special Training Schools (2 percent).

FIGURE 3
J.S.F. Loans Recipients and
Total Enrollment, SY 1986



Source: Appendix Tables A-2 and C-3

The figures above do not include those receiving scholarships from other sources. The 1984 Students' Living Survey indicated that in total 21 percent of full-time under-graduate students received some form of financial assistance.[10] Out of those students, 75 percent received only the Japan Scholarship Foundation loans; 17 percent, both the J.S.F. loans and the other scholarships; and the remaining 8 percent, exclusively other scholarships. The sample of this data, however, are probably biased: the figures imply that the proportion of the J.S.F. loans recipients in 1984 was 18 percent, compared to 13 percent obtained through a similar calculation method as above. Nonetheless, the survey did suggest that the other sources are augmenting the proportion of recipients by less than two percent points, implying that currently the chance of receiving any form of financial aid would be at most 16 percent.

Time-series comparisons in the proportion of the J.S.F. loans recipients (Appendix Table C-5) show that since the beginning of the 1970s the chances of receiving a free-interest Category I loans have remained almost stable - around 10 percent with four-year institutions and 4 percent with two-year institutions. Introduction of the Category II loans in 1984 has been the major factor in augmenting the total number of available loans.

3.3.2 Characteristics of the Recipients

Information about the distribution of the loans by control of institution (Appendix Table C-3) indicates that, of the total amount of loans made to under-graduate students in FY 1986, 37 percent went to students in national and municipal institutions. This implied a slight over-representation of the public institutions. But, because the amount of individual loan tends to be smaller for the students in public institutions, their proportion among the all recipients is in fact much greater: 47 percent for both categories of loans, and 52 percent of the Category I loans. The likelihood of receiving loans was therefore greater for the students in national or municipal institutions than those in the private institutions.[11]

The greater chances of receiving loans among the students in public institutions may be partly attributable to the lower family income levels in those institutions. In fact results of the 1984 Students' Living Survey suggest (Appendix Table C-7) that the chances of receiving a scholarship of any kind are strongly correlated with family income, and this is the case regardless of the control of attending institution. Nonetheless, for a given family-income class students in national and municipal institutions tend to present a higher likelihood of receiving scholarships. The margin is particularly conspicuous among the middle income classes. These remaining differences are therefore reflecting the policy of the J.S.F. to account for the academic achievements in selection of recipients.

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10 MOESC, 1984 Students' Living Survey, Tables K and L.

11 The students in private institutions tend to benefit more from non-J.S.F. sources: including the double-source recipients, the recipients of non-J.S.F. programs accounted for 29 percent of total recipients among the private institutions compared to 17 percent among the national institutions.

3.3.3 Loans and Living Expenditures

For the students in public institutions, the annual amount of the J.S.F. loan in 1984 was ¥ 264 thousands for those living at home, or ¥ 336 thousands for those living away from home. In the same year, the student charges at national institutions was on the average ¥ 241 thousands. Averaged living and academic cost of students at national institutions amounted to ¥ 775 thousands for at-home students, and ¥ 1231 thousands for away-from-home students.[12] The amounts of loans were therefore significantly greater than the direct cost. But, in comparison to the total costs including living expenses the loan accounted only for one-third for at-home students, and one-fourth for away-from-home students.

For the students in private institutions the loans were set at a slightly higher level to allow for the difference in tuition. Nonetheless, similar calculations to those above indicate that the loans even fell far short of student charges: they accounted for only 52 percent for at-home students, and 69 percent for away-from-home students. Compared to total expenses, the loan represented 32 percent for at-home, and 28 percent for away-from-home, students.

Over the past years the amounts of the Japan Scholarship Foundation loans have been raised consistently (Appendix Table C-6). At the same time, the tuition levels at private and at public institutions have shown substantial increases. As a result, the relative size of the loans to total expenses have not shown appreciative changes for the away-from-home students, but declined significantly for the at-home students. For those in public institutions the margin of loan over the direct costs has shrunk substantially in real prices. As for those in private institutions, the gaps between loans and direct costs has expanded in real prices.

12 Total expenses are taken from the 1984 Students' Living Survey, Table A-1.

4 ISSUES AND RECENT REFORMS

The issues and reforms on higher education finance since 1970 are examined in this section. The first subsection (4.1) delineates the emerging issues at the beginning of the 1970s, and the fiscal environments in the following period. Actual policy changes since 1970 are then described with respect to the finance of public institutions (subsection 4.2), public subsidy to private institutions (4.3), and non-institutional subsidies (4.4).

4.1 ISSUES AND THE ENVIRONMENT OF REFORM

The development of higher education since the postwar period had created by the end of the 1960s two distinctive structural problems: one concerned with the efficacy of governance and finance of public institutions, and the other the disparities between the public and private institutions.

4.1.1 Governance and Finance of Public Institutions

The issue over efficacy of governance and finance at the national institutions can be traced back to the postwar educational reform where the prewar Imperial Universities and various types of post-secondary institutions were integrated into a single system of four-year universities and colleges. Given the status of a university or a college, all the new national institutions took the form of governance of the former Imperial Universities, where the fundamental decision-making rested upon the departmental faculty meeting (*Kyoujukai*). Meanwhile, since many of the institutions newly given the status of university or college lacked the appropriate facilities and managerial resources, the foremost priority in establishing the new system had to be laid upon their upgrading. It is interesting to note that in this period there were proposals to give the national institutions greater degrees of financial and administrative autonomy by transferring their control to the prefectural governments. But, given the depleted budgets of local governments, such proposals turned out to be unrealistic. In order to secure necessary financial and administrative resources for the new institutions, all the national institutions were integrated equally under the Ministry of Education almost as extensions of its administrative organization. Thus, while the departments commanded ultimate authority in decision making, the Ministry of Education maintained strong links to each institution with respect to administration and finance. The contradiction between the two elements still characterizes the governance and finance at national institutions at the present time.

The system of governance and finance has attracted, almost from the beginning, serious criticisms from inside as well as from outside of the national institutions. The complaints from inside focused mainly upon inflexibility in budgets. Given the principle of departmental autonomy, the budget allocated to a national university was typically divided among departments based on the numbers of faculty and students. In many cases the funds were divided further among the Chairs. As a result, available budgets for each faculty became too fragmented to attempt innovative educational or research activities. Moreover, expenditure of the budget was subject to the

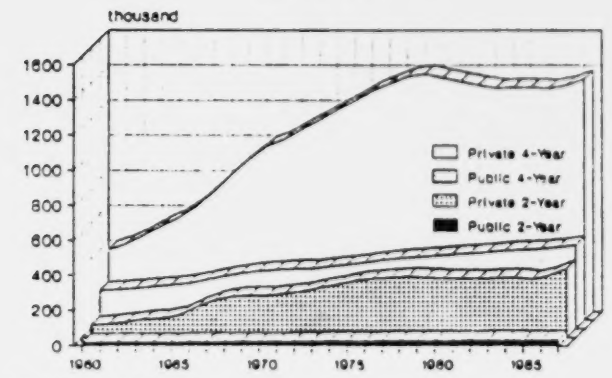
governmental auditing, and had to comply with the accounting codes of the national government. These codes and regulations tended to be too restrictive for innovative attempts in research or education. These complaints have been particularly strong among the leading research institutions. Criticisms from the outside were made from various view-points, and some of them were political. Most frequently it was alleged that the national institutions were inefficient, and slow in responding to changes in social needs, due to a lack of sufficient administrative authority at the institutional level. Another class of important criticisms were concerned with the almost exclusive dependence of the national institutions upon the national budget.

The budgetary system supporting the national institutions went through a modification in 1964, when the revenues and expenditures of the national institutions were separated from the General Account to form the independent National Schools Special Account. The reform contributed to enhancing collective financial autonomy of the national institutions in the national budget. But fundamental problem of the system of governance and finance therefore lied in the absence of effective autonomy exerted at the institutional level. As the educational and research activities at the national institutions expanded and the sizes of expenditures at the national institutions multiplied over the 1960s, the problems intensified.

4.1.2 Public-Private Disparity

Predominance of the private sector with respect to enrollment constitutes a basic characteristics of the present higher education system. Figure 4 demonstrates, however, that it was not the case when the new system of higher education started after the war; it was formed through the process of rapid enrollment expansion in the 1960s.

FIGURE 4
Enrollment by Control of Institution
SY 1960-1987



Source: Appendix Table A-2

In retrospect it can be argued that a significant factor in forming this trend was the orientation of government policy towards qualitative upgrading of the national institutions. During the process of postwar reconstruction, a combination of inadequate facilities of the newly established national institutions and an acute financial stringency deemed it quite natural that priority be given to qualitative improvement over quantitative expansion. In the 1960s, the high-growth policy through industrialization necessitated large quantities of scientific manpower, most of which had to be supplied by expanding relevant courses in the national institutions. Since the unit costs in these fields tend to be high, the quantitative expansion of the national institutions had to be again limited. On the other hand, the popular demand for the opportunities of higher education expanded fast with the rapid economic growth. Mounting pressures for increasing available places at higher education institutions forced the government in the beginning of the 1960s to take a policy to apply lenient standards in chartering private institutions.[13] Subsequently, new institutions were established in large numbers, while the existing institutions started to enroll students far exceeding the capacity originally set by the charter. Over the 1960s, the enrollment of the four-year and two-year private institutions increased as much as 2.7 times (Appendix Table A-2).

The net result of the qualitative upgrading of national institutions on the one hand, and an enormous quantitative expansion of the private sector on the other, was the emergence of sharp qualitative disparities between the two sectors. The trend was evident in the changes of per-student cost in the two sectors: over the 1963-1970 period the average total cost per student for national institutions increased by 1.7 times in real prices, whereas for private institutions it remained practically unchanged. By 1971, the ratio between the private and the national institutions in the average per-student cost reached the level of 1-to-2.8 (Appendix Table B-6). The difference in costs was clearly reflected in various aspects of educational conditions. In the same year, there were on the average as many as 31 students for one full-time faculty at private four-year institutions, compared to 8 students in national institutions (Appendix Table B-8); the averaged building space was 8 square meters per student for private institutions against 31 square meters for national institutions.

Despite the inadequate educational conditions, the private institutions - being almost entirely dependent upon student charges - had to charge considerably higher tuitions than the national ones, and keep raising the tuition level due to rising wage costs. Over the 1960s, the average student charges at private institutions more than doubled in real prices. The tuition at national institutions was raised several times throughout the 1950s and the 1960s, but only to the extent of regaining the loss in value due to inflation (Figure 5 below). As a result the tuition level at national institutions in real prices stayed almost stable over this period. Though never stated explicitly, the higher education policy was clearly oriented towards keeping the tuition at national institutions at low levels, partly because of the consideration on equity of opportunity and partly because of the need to provide financial incentives to economically strategic fields of study. Since the economy

13 Pempel, 1978.

experienced a tremendous growth over the same period, the size of tuition at national institutions relative to per capita G.N.P. diminished from 6 percent in 1960 to 2 percent in 1970 (Appendix Table B-7). As a result the difference between the two sectors in student charges grew sharply, as reflected in the public-private ratio which increased from 1-to-4 in 1960 to 1-to-9 in 1970.

4.1.3 Economic Environment after 1970

The two issues delineated above - the form of governance and establishment in the public institutions, and the public-private disparity - constituted the major challenges to reforms after 1970. The reforms in the subsequent periods, on the other hand, were critically affected by the economic environments in the 1970s and 1980s.

Since the beginning of the 1970s the government started expanding expenditures, particularly in the fields related to welfare. Appendix Table A-7 shows that over the period 1970-1980, the size of the general expenditure from the national government increased by 2.6 times, or at an annual rate of almost 10 percent, in real prices. The share of total government expenditure in the G.N.P. expanded from 11 percent in 1970 to 18 percent in 1979. On the other hand, the economic growth rate that once approached a 10-percent level until early 1970s started to shift downward, particularly after the second Oil Crisis in 1974. Averaged through the 1980s, the economic growth rate turned out to be only 5 percent per annum in real prices. The gap between the growth in expenditure and stagnating tax revenues eventually created sizable amount of fiscal deficits, financed in the form of national bonds, towards the end of the 1980s. In the budget for FY 1979 the deficit accounted for 35 percent of the national budget - the highest level ever reached since the postwar reconstruction period.

In the face of this mounting debt, the government shifted its priority to restraining expenditures. The FY 1980 budget marked a water-shed: its increase rate over the previous fiscal year was only 6 percent in real prices, compared to 12 percent in the FY 1979. Strong determination of the government to curb expenditures was further translated into the establishment in 1981 of the Ad Hoc Council on Public Administration under the purpose of investigating ways for structural readjustment of government activities. In the 1980s, the stern measures taken towards reduced spending has been showing steady effects despite the growth of entitled expenditures on medicine and welfare: the share of the General Expenditure in the G.N.P., after reaching in 1980 at its peak of 18 percent, has been slightly declining to the present. The dramatic shift to financial stringency created pervasive effects on higher education policies, which will be described below.

4.2 FINANCE OF PUBLIC INSTITUTIONS

In the period since 1970, criticisms about public institutions prompted various reform plans and policy changes. They are reviewed below with respect to: (i) attempted reforms in the system of governance and finance at public institutions; (ii) measures taken towards financial austerity; and (iii) changes in allocated budgets and unit costs.

4.2.1 Attempted Reforms on the System of Governance and Finance

The intrinsic problems in the system of finance and governance at national institutions were exposed and received wide attention through the higher education "crisis" around 1970, and prompted various proposals for reform from business associations,[14] political parties,[15] or university professors.[16] The government established a subcommittee in Central Council for Education, which in 1971 issued the *Basic Guidelines for the Reform of Education*. The report stated as follows:

> Among institutions of higher education, national and public universities are considered to have the character of governmental agencies but at the same time it is thought that special consideration should be given to them owing to their unique characteristics. They, therefore, are in a position where conflicts easily develop with the governmental authorities in terms of administrative affairs. Furthermore because of the way in which these institutions are organized, their internal governing bodies tend to be conservative in making decisions and to lack a sense of autonomy and responsibility. Therefore, the following two types of reforms are proposed.....(1) The present form of establishment for government universities should be abandoned and these universities should be incorporated in a new form which increases the autonomy they have over internal management while preserving their public character and their claim to public funds. (2) The universities should improve their administration, establish responsible management, and clarify the relationships they maintain with those bodies who provide subsidies for their opportunities.[17]

The first type of reform, in short, would imply a new form of establishment, such as public corporation. The second would require a strengthened administrative body at the institutional level.

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14 Keizai Douyu Kai, kouji Fukushishakai no tameno Koutoukyouiku Seido [Higher Education System for an Advanced Welfare Society].

15 Jiyu Minshutou [Liberal Democratic Party], Shinkousou Daigaku Shian [Proposal for New Concept Universities], 1979; Shakaitou [Japan Socialist Party], 70 Nendai no Kyouiku Kaigaku Seisaku [Educational Policy Reforms for the 1970s], 1979.

16 Michio Nagai, Daigaku no Kanousei [Potentials of the University], Chuo Koron, 1971; Reform Committee, the University of Tokyo, "The Relation between the University of Tokyo and the Nation and the Society," 1970; Soichi Iijima, "Daigaku no Secchi Keitai" [Establishment Forms of the University], Research Institute for Higher Education, Hiroshima University, Daigaku Ronshu 2 (1974).

17 MOESC, Basic Guidelines for the Reform of Education, Report of the Central Council for Education (English Version), 1972, Chapter 3, p.39

It was the second type of reform that was materialized immediately into a concrete policy. In 1973, the government established Tsukuba University as one of the "new concept" universities. The administration of the University - consisting formally of a few Vice Presidents, each responsible for specific activities, and the Board of Councilors including representatives from outside the university - was given considerably greater power than in the conventional institutions. Perceptions about the achievement of the University, however, have been at best mixed.[18] It seems reasonably evident at this point that the university failed in enticing other national institutions towards reforms in this direction.

The reform of first the type - changing the type of establishment itself - received wide attention, and a few proposals were made in that direction. The O.E.C.D. review on Japanese education policy[19] in 1971 went in length to discuss the possibility of transforming the national and municipal institutions into public corporations. It further examined necessary measures for realizing it, including an agency that would channel public funds to those institutions. In subsequent periods reform plans perceived in this direction failed to materialize. Nonetheless, they have remained as a vital alternative among concerned experts and recently the interest to this alternative has resurrected again gained a fresh dimension under the age of financial stringency and "privatization."

In the Ad Hoc Council on Education, there were opinions proposing transforming the national institutions into independent "Special Juristic Persons." Special Juristic Person, a category of corporations in the Japanese Civil Code, has to be established specifically by a law enacted by the Diet, but its finance and management may take forms similar to those in private business corporations. Under this plan, each institution would receive a lump-sum government subsidy and run on its own budget; academic and administrative staffs would then become the employees of each institution.[20] On the other hand, there were opinions casting serious doubts on effectiveness of such reforms. Besides the technical problems involved in transferring the employees and institutional properties,[21] such reforms would create a substantial disparity between the large and prestigious institutions on the one hand, and smaller and regional ones on the other. But, more important, the examples of the existing Special Juristic Persons - or the private universities and colleges for that matter - prove that an ostensibly independent status would not necessarily induce organizational efficiency or vitality. An expert committee appointed by the Ad Hoc Council concluded that the desired changes in the national institutions may be achieved, by relinquishing greater freedom of spontaneous choice to each instituion, within the present framework of legal status. Eventually the Ad Hoc Council itself stopped short of recommending such reform in its final report in 1987, leaving the issue open for future debates.

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18 Since its creation, the university has been criticized for its excessive administrative controls. It has been also unclear that, despite extraordinary support from the MOESC for fifteen years, it has distinguished itself for its efficiency from the conventional institutions.

19 O.E.C.D. Reviews of National Policies for Education: Japan, Paris, O.E.C.D., 1971.

20 Similar proposal was made in 1985 by a group of independent scholars. Seisaku Kousou Forum, "Gakko Kyouiku Gyousei no Kaikaku" [A Proposal towards Innovations in School Education Administration], 1985.

21 Another significant technical problems included the transfer of pension funds.

Although major reforms on establishment form have not taken place so far in national institutions, some significant changes have been seen in municipal institutions. The case in point is the emergence of new patterns in which local governments participate in establishing a university or college. Through an arrangement generally termed "public-private cooperation," a typical local government would donate the land for the campus, or contribute a part of the initial capital investment, to the private university or college planned to be located in the area. It is reported that in the period 1976 through 1983, thirty-seven (12 four-year and 25 two-year) new institutions were established through this method.[22] The arrangement has been particularly popular among regional localities that desire an institution of higher education in the area, and yet lack the resources required for fully supporting it.

4.2.2 Measures Towards Financial Austerity

The criticisms about public-private disparities in student charges, coupled with the rising fiscal stringency, created persistent pressures towards increased financial austerity among national institutions. Even though radical reforms in the system of finance failed to materialize, significant measures were taken within the framework of the existing system to augment the revenues of the national institutions.

Changes in tuition at national institutions, though never clearly stated as a policy, have functioned in effect as an important measure of reform in this respect. The 1971 Report of the Central Council of Education thus recommended to "reduce differences in the finances available to different institutions that result from their form of establishment..."[23] The means to rectify it was sought in two directions: one towards channeling public subsidy to the private institutions, which will be discussed in Section 4.3, and the other towards raising the tuition at national institutions. The latter option was made into an actual policy in 1972, when the tuition for new entrants was raised threefold at once, from ¥ 12 thousands to ¥ 36 thousands. The policy was followed in 1976 by another major increase to ¥ 96 thousands. As the budgeting authorities under the pressure of fiscal stringency enforced increasingly stern measures to augment any government incomes, the increase in tuition was accelerated. Since 1976 to the present, the tuition level has been consistently raised by significant margins at an interval of three or four years. The rapid trend of tuition raise can be clearly observed in Figure 5, where the changes in average student charges[24] in real prices are presented. Compared to the one in 1970, the averaged student charge increased more than four times by 1980, and six times by 1985. The size of student charge relative to per capita G.N.P., which stood at 2 percent in 1970, is now approaching the 10-percent level.

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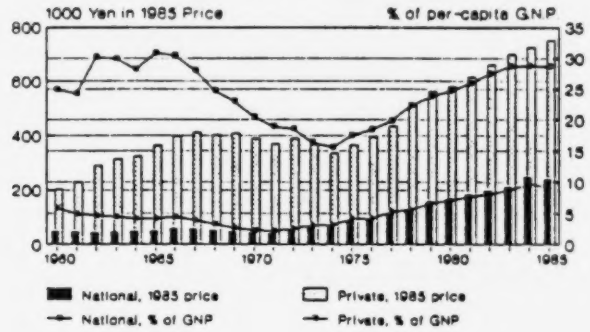
22 Akira Tachi, "Kotokyouikuhi no Suii to Koku-kouritsu Daigaku" [Changes in Higher Education Expenditure and the National and Local Universities and Colleges], Bulletin of Institute for Higher Education 8 (1988), pp. 33-45.

23 Central Council for Education, idem, p.40.

24 The student charges include the annual tuition, installment at entrance, and other fees. As the tuition increase at a given fiscal year is applied only to the new entrants, the changes in averaged student charges slightly lag behind the changes in tuition.

FIGURE 5
Tuition in 1985 Price and As % of
Per-Capita G.N.P., FY 1960-1985



Source: Appendix Table B-7
Note: Four-Year Institutions Only.

Still in another attempt to augment the own revenues at national institutions, the MOESC sought to tap funds from private businesses. A significant policy in this direction was the creation of accounting codes allowing Research Grants (*Shougaku Kifukin*) and the Research Contracts (*Jutaku Kenkyuu*) from private business. The effect of these measures is reflected in the steady increase in the funds from these sources in the 1980s (Appendix Table B-9). With similar intention, the MOESC made it possible in 1987 for the national institutions to establish Donated Chairs (*Kifu Kouza*) financed by private parties. The Donated Chairs will consist of one or more visiting professors or associate professors, who will given the status on part-time basis. Recently the MOESC has also made it possible for the national institutions to create an Attached Foundation which, typically established upon contributions from private corporations and the alumnus, would contribute to academic activities not supported by official budgets. There are concerns that these measures on the whole would benefit only the prestigious research-oriented universities, and may enhance disparities among the national institutions. There are also criticisms that the corporate grants and contracts tend to concentrate on particular fields of study that would bear immediate economic returns, and may consequently bias the nature of academic inquiries. However, at least so far the private contributions have not grown enough to make any tangible effects on the total revenues or on their distribution. In fact, the combined share of the corporate Research Grants and Contracts accounted for only 3 percent of the total revenue of the national institutions in FY 1985.

Reflecting the decline in national subsidy on the one hand and measures directed towards financial austerity on the other, the structure of revenues at the national institutions have changed substantially. Over the 1970-1987 period, the share of the national subsidy fell from 82 to 63 percent, while the income from tuition increased from 2 to 9 percent, and that of the attached hospitals from 12 to 30 percent (Appendix Table B-2). The combined share of the sales of services and miscellaneous incomes now accounts for one-third of the total revenue.

4.2.3 Enrollment and Unit-Expenditures

The transfer from the General Account to the National Schools Special Account, or the direct subsidy to the national universities and colleges, increased steadily in the 1970s (Appendix Table A-6). Over the nine-year period from 1971 to 1979, the size of the transfer multiplied by 1.8 times in real prices, or at an annual increase rate of almost seven percent. Since this rate exceeded the economic growth rate, its share in the G.N.P. showed a substantial increase from 0.35 percent to 0.42 percent (Appendix Table A-9).

To a large extent, the substantial increases in government appropriations were due to the policy of the MOESC in the 1970s to gradually increase the size of total enrollment at regional national institutions. The policy not only served the need to correct the public-private imbalance, but also was consistent with the national policy towards regional development. Over the 1970s, the enrollment in the national universities and colleges increased by 31 percent. Another factor contributing to the expansion of the transfer to the NSSA was the increase in averaged cost per student. But the magnitude of the increase, 20 percent in real prices over the 1971-1980 period, was modest compared to that of enrollment expansion. It also fell far short of the two-fold increase in per-student expenditure in the private institutions.

At the end of the 1970s the rising fiscal stringency started to inflict serious effects on the subsidy to the national institutions. The increase given to the NSSA in the FY 1980 Budget fell below the level necessary to compensate for the loss in value due to inflation rate, thus marking the first decline of the item in real prices since the postwar period. The following years saw its stagnancy or slight decline. Meanwhile, tuition raises and other measures towards financial austerity have not yet created enough additional revenue to compensate for the loss of total revenue due to stagnancy of national subsidy. As a result, per-student expenditure at the national institutions has shown a significant decline in real prices over the first half of the 1980s. Since the growth in the 1970s was already limited, per-student expenditure was brought down by the mid-1980s to the level observed at the beginning of the 1970s. Considering that the research activities have been dependent upon increasingly sophisticated and expensive facilities, and also that there have been steady increases in the proportion of graduate students, the stagnancy of per-student expenditure may have to be interpreted as a sign of significant deterioration in the conditions of education and research at national institutions.

4.3 PUBLIC SUBSIDY TO PRIVATE INSTITUTIONS

Toward the end of the 1960s the widening disparity between the public and the private sector induced growing resentment and a sense of injustice. At the same time, the financial conditions of many private institutions started rapid deterioration. These factors created acute needs for public subsidy to private institutions, and the resulting Current Cost Subsidy to private institutions became probably the most important change in higher education finance in the following period.

4.3.1 The Current Cost Subsidy to Private Institutions

In 1970, for the first time the Diet appropriated a significant amount of national budget to subsidize private universities and colleges for their running costs. The subsidy was proposed at the time as an emergency relief to the private institutions, which were rapidly accumulating debts and even facing the possibility of insolvency. But a political consensus to enhance the public subsidy to private institutions as a means to rectify the public-private disparity was already being formed. The 1971 Report of the Central Education Council recommended that a part of educational expenditures in private institutions be subsidized by the national budget.[25] In 1975 the subsidy was finally given a firm legal basis and integrated into the government appropriation on higher education by enactment of the Private Schools Promotion and Assistance Law. A provision in the law stipulated that the national government may subsidize private institutions of higher education "for an amount not exceeding half of their current expenditures on education and research."[26]

Throughout the 1970s the Current Cost Subsidy increased consistently and substantially. In FY 1971, the second year since its inception, it had already become the second largest item among the major government expenditure on higher education. It grew to ¥ 101 billions by FY 1975, and to ¥ 284 billions by FY 1981 (Appendix Table A-5). In 1981, the subsidy accounted for 20 percent of all the major government expenditures on higher education, and three-times greater than the expenditure on scholarships. For the private institutions, the Current Cost Subsidy quickly became one of the major sources of revenue. Its share in the general income of the private institutions increased from negligible in FY 1970 to 24 percent in FY 1979. In the same year the public subsidy provided the second largest source of revenue after student charges (Appendix Table B-4).

It is important to note, however, that the provision of the Private Schools Promotion and Assistance Law quoted above had two important aspects: on the one hand, it opened a way for the national government to contribute to the finance of private institutions but, on the other, it stopped short of specifying the extent to which the government is obliged to contribute. Thus, the Current Cost Subsidy can not be considered as an entitled expenditure, and the appropriation is subject to political and administrative arbitration. It is not surprising that the trend of rapid increase in this subsidy was suddenly halted as fiscal conditions deteriorated at the end of the 1970s. In the 1980s,

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25 MOESC, Chuuo Kyouiku Shingikai Toushin - Kongo ni Okeru Gakkou Kyouiku no Sougoutekina Kakuju Seibi no Tameno Kihonteki Shisaku ni Tsuite, [Report of the Central Education Council: On Basic Policies for Comprehensive Development of School Education in Future], 1971, Part I, Chapter 3, Section 10 (page 47).

26 Shiritsu Gakko Shinko Josei Ho, [Private Schools Promotion and Assistance Law], Article 4.

the Current Cost Subsidy has been stagnating in nominal values and declining in actual values. Consequently its share in the General Revenues at the private institutions shrank down to 15 percent by 1985 (Appendix Table B-4).

4.3.2 Effects of the Public Subsidy

The creation of the Current Cost Subsidy naturally brought about pervasive influences, but their nature has been a subject of controversy. Major debates are summarized below with respect to the effects on the financial viability, educational conditions, and student charges at private institutions.

Financial Health

As indicated above the immediate factor that prompted the Current Cost Subsidy was rapidly deteriorating financial conditions of private institutions at the end of the 1960s. Financial indicators of the period indicate that the majority of the private institutions were incurring considerable amounts of short- and long-term debts, and some of them were in fact facing the possibility of insolvency. The establishment and enhancement of the Current Cost Subsidy over the 1970s created a new and substantial additional income to the finance of the private institutions. Together with the revenue from the increased student charges since the mid-1970s, one would expect that the Current Cost Subsidy made it possible for the private institutions to reduce their dependence on borrowing. In fact, the period since 1970 has seen no four-year private institutions forced to extinction for financial reasons. The financial statements of private institutions indicate, however, that the proportion accounted for by deficits in the Regular Revenues of the private institutions has shown no appreciative decline since the early 1970s. Interest groups among private institutions have been attributing the remaining deficits to the persistent pressure from increasing costs. According to this view private institutions on the whole have not yet gained financial viability, and they still need substantial increases in the Current Cost Subsidy to secure their stability in the long run.

In recent years, there have been growing scepticisms about this view: it has been argued that the claimed deficits in recent years may have been in fact fictitious.[27] The Private Schools Accounting Standards allow a proportion of revenue in a given year to be transferred to the "Basic Fund," which is usually spent on acquisition of physical facilities and financial assets. Since the amount of transfer can be arbitrarily determined by the institution, and the transferred amount can be deducted from the General Income, there are indeed possibilities that private institutions set the amount of transfer intentionally at high levels and impute large amounts of deficit. Indeed, the transfer to the Basic Funds increased tremendously over the 1970s, and reached at a level corresponding to twenty-percent of the General Income by the mid-1980s. The amount was markedly greater than the income from long-term deficits.

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27 Chuichi Nakamura, Shiritsu Daigaku - Sono Kyozo to Jitsuzo [Private Universities and Colleges - The Illusion and Reality], Toyo Keizai Shinpo, 1980.

It would be incorrect to assume the transfer to the Basic Fund entirely as a disguised surplus. Even critics of private institutions agree that the Basic Fund plays an essential role in upgrading necessary facilities and in consolidating financial stability in the long run. Nonetheless, it appears to be reasonably clear that the imputed deficits can no longer suffice as the evidence of immediate financial exigencies in the private institutions. The growth of the Basic Fund may as well be interpreted as an indication that even deficit has become an alternative in the managerial choice of the private institutions. In that sense, one may argue that the financial conditions of the private institutions have gone through considerable improvement since 1970.

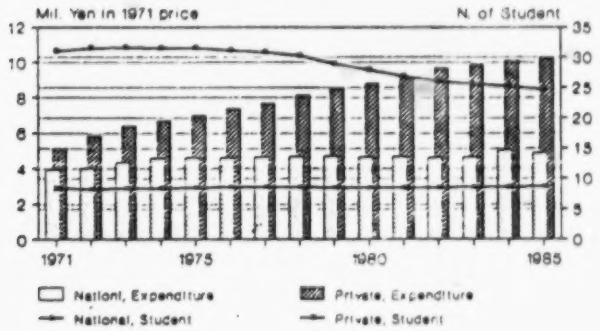
Effects on Educational Conditions

The rapid quantitative expansion under the relatively lenient chartering policy of the 1960s had resulted in low levels of expenditure per student, and inadequate educational conditions, in the private institutions. Since the creation of the Current Cost Subsidy, however, the per-student expenditure started an impressive increasing trend. Figure 6 (a) below shows that, over the period FY 1971-1985, the average per-student cost in private four-year institutions increased as much as 2.2 times in real prices. The change was particularly impressive when contrasted to that of the national institutions, which has remained practically unchanged. As a consequence, the national-private ratio in per-student cost declined from 2.7 in FY 1971 to 1.9 in 1980, and to 1.3 in 1985 (Appendix Table B-6). From this view-point, there has been a significant reduction in the national-private disparity. Considering that the national institutions have greater proportions of students at the post-graduate levels, and also that considerable costs in the national institutions are solely devoted to research, one may even suppose that the quality of educational services in private institutions has closely approached to that of the national institutions.

The increased expenditures, however, have not accompanied corresponding improvements in the quality of educational conditions. Since the unusually large class sizes in the private institutions were considered to be critically detrimental to the quality of instruction, changes in the size of faculty deserve particular attention. Figure 6 (a) shows that over the 1970s - when the Current Cost Subsidy was expanding consistently and the per-student cost almost doubled - the averaged number of students per faculty showed only a marginal decline, from 31 in 1971 to 28 in 1980. On the other hand, current expenditure *per full-time faculty* almost doubled in real prices. In the 1980s, the student-faculty ratio showed a further decline, from 28 in 1980 to 25 in 1985. But at the same time, the per-faculty expenditure kept increasing at almost the same pace as the former period. Over the fifteen-year period between 1970 and 1985, the student-faculty ratio decreased by only twenty-six percent, while the per-student expenditure doubled in real prices. As a consequence, the number of faculty per student at private institutions in 1985 was still about one-third of that at the national institutions, whereas the per-faculty expenditure became twice the size of the latter.

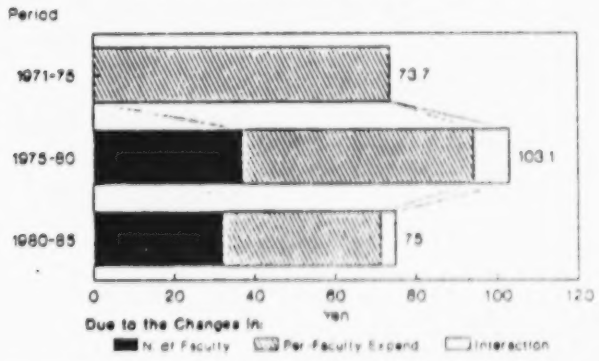
The financial mechanism behind the slow reduction in class size can by analyzed by mathematically separating the changes in per-student expenditure into the proportion devoted to increasing the the faculty-student ratio, and that to augmenting *per-faculty* expenditures. The results of this exercise, summarized in Figure 6 (b), demonstrates that - even though per-student current expenditure in private institutions increased from ¥ 165 thousand to ¥ 238 thousand in real prices over the 1971-1975 period - almost none of the increment was devoted to increasing the per-student faculty. In the following 1975-1980 period the increase in per-student faculty received one-third of the increment, and in the 1980-1985 period less than a half. For the whole period between 1971 and 1985, only one-fourth of the increment in per-student expenditure was devoted to reduction of class size.[28]

FIGURE 6 (a)
Expenditure and Number of Student per Faculty, FY 1971-1985



Source: Appendix Table B-8
Note: Based on N. of full-time faculty

FIGURE 6 (b)
Factors of the Changes in Per-Student Expenditure, Private Institutions



Source: Appendix Table B-8

28 For more detailed analysis see: Masakazu Yano and Fumihiro Maruyama, "Changes in Revenues and Expenditures of Japanese Private Universities and the Public Subsidy," Bulletin of Institute for Higher Education 8, pp 34 - 46.

There have been persistent criticisms that a substantial part of the augmented financial resources were devoted not to improving educational conditions, but to raising the wage level of the existing faculty and administrative staffs. The data in Appendix Table B-4 in fact indicates that over the period 1971 to 1981, wage costs in the four-year private institutions increased as much as 5.6 times in current prices, or 2.4 times in real prices. Since the number of full-time faculty and administrative staffs increased from 75 thousands to 125 thousands over this period, it implies that the average wage increased by about 40 percent. Some statistics showed that, by the end of the 1980s, the wages of the faculty and administrative staff in the private institutions exceeded those in the national institutions by 20 percent or even more. Because of the lack of comprehensive data about the wage levels in the private institutions, cross-comparisons in wage levels between the national and the private institutions have been a subject of dispute. Moreover, the wage levels in the private institutions show considerable variance by individual institution, and among small and less prestigious institutions the wages tend to remain relatively low. Nonetheless, it appears to be generally agreed that on an average the wages in the private sector have surpassed those in national institutions by significant margins.

Whether the sharp increases in faculty and staff wages in the private institutions are justifiable is a complex and sensitive issue. One may argue that the higher wage levels only compensate for the relatively heavy teaching loads in the private institutions. Moreover, the slow reduction in class size in early 1970s was partly due to the very rapid growth in enrollment. The exercise above also showed that the proportion accounted for by the increase in full-time faculty has been steadily growing since 1970. Nonetheless, the past behaviors of the private institutions do appear to indicate that they have not only been determined by considerations on educational environment, but also strongly influenced by the interest of its members and other organizational factors.

Effects on Student Charges

A significant aspect of the public-private disparity was the difference in the levels of student charges. Obviously, the high tuition levels in the private sector of higher education that account for one-fourth of the students are detrimental to equity in opportunity of higher education. One important rationale for the Current Expenditure Subsidy was therefore its expected effect in lessening the financial burden born by parents. In Figure 5 above it is evident that in the first half of the 1970s, when the Current Cost Subsidy was increasing steadily, the averaged student charges increased only to the extent to compensate for the inflation rate.[29] Since the tuition at the national institutions was raised substantially, the national-private difference in student charges was reduced. Moreover, the ratio of averaged student charges relative to per capita G.N.P. also dropped from a peak of 30 percent to 18 percent by the mid-1970s. Obviously, over this period the Current Cost Subsidy was associated with an appreciative reduction in parental burden.

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29 The student charges here, derived through dividing the total institutional revenues from student payments by the number of enrolled students, include not only tuitions but also other miscellaneous payments.

But in the second half of the 1970s, the private institutions started raising tuition. In the five-year period between 1976 and 1981, the averaged student charges surged by as much as 56 percent in real prices, or at an annual increase rate of 9 percent. Since in the same period the Current Cost Subsidy was still increasing at substantial rates, the sharp increases in tuitions - accompanied by the growth in faculty and staff wages - drew wide social criticism. In the 1980s, the rate of increase has been somewhat contained, but is still continuing at an average of 5 percent per annum. The increase in the 1980s can be partly attributed to the gradual decline in real prices of the Current Cost Subsidy. But the actual rate of tuition raises has far exceeded the level required to compensate for the decline in Current Cost Subsidy. As a result, despite the continuing rises in the tuition at national institutions the national-private difference in student charges has been again widening in real prices (Appendix Table B-7). The size of student charges relative to per capita G.N.P. has also soared rapidly. By 1985, the ratio almost reached the level of 30 percent - the highest ever observed since the 1960s. Considering that the range of families sending children to private universities and colleges had expanded substantially since the 1960s, the same ratio should have implied greater financial sacrifices to many of the families.

Hence, if the tuition levels just before the introduction of Current Cost Subsidy and after that are simply compared, one is lead to conclude that the Current Cost Subsidy did not contribute effectively to reducing the financial burden on students - either in terms of the value in real prices or in terms of the relative size to per capita G.N.P. It is possible to argue that, if there were no public subsidies, the student charges may have gone up even further. But, at the same time, it should be pointed out that even with greater amount of public subsidy the tuition increases may not have been of smaller magnitudes.

4.3.3 Recent Trends

The above discussions demonstrate that evaluation of the effect of the Current Cost Subsidy involves complicated analytical issues and delicate value judgements. One thing clear, however, is that the actual effects of the public subsidy have been critically dependent upon the behaviors of the private institutions, which are in turn strongly influenced by their internal and external environments.

In this context it is interesting to recall the significant behavioral shifts occurring in the mid-1970s, the period when the Current Cost Subsidy was formally integrated into the national appropriations for higher education by enactment of the Private Schools Promotion and Assistance Law. But more important, revision was made at the same time to the School Education Law, providing the MOESC with a legal ground to refuse establishment or expansion of private institutions based on its judgement about future supply and demand for higher education. Subsequently the MOESC set a Higher Education Plan and strictly restrained the total enrollment capacity in large urban areas, where the majority of the private institutions were concentrated. The MOESC policy, aimed at qualitative improvement of the private universities and at correction of regional inequality in opportunity of higher education, helped to retain the total supply of the

places of higher education well below the demand. In retrospect, one may argue that the policy rendered the same effect as a cartel among the existing private institutions.[30] One may also recall that at the same period the tuition level at the national institutions had been raised substantially and steadily in order to, ironically, reduce the public-private disparity in student charges. These factors created a favorable condition for the private institutions to raise tuition. As independent economic entities it is natural for private institutions to attempt to secure enough financial resources for long-term stability, and in the final analysis availability of public subsidy has made little incentive to restrain tuition raises.

These observations do not necessarily imply that the present level of Current Cost Subsidy can not be justified on broader grounds. Quite apart from the assessment on its effects, one may assert that certain level of public expenditure on private higher education should be considered as an investment for the future social and economic ground. Some studies indicate that the marginal increase in future tax revenues due to college education exceed the present outlay for the Current Cost Subsidy.[31] Moreover, provided that the Current Cost Subsidy has been already integrated in the revenue of private institutions as an indispensable source its radical *reduction* may trigger immediate financial problems in many private institutions, and eventually tuition raises. Nonetheless, the past experiences do appear to suggest that further increases in the Current Cost Subsidy may not necessarily bring out appreciative effects either in upgrading the quality of education in private institutions, or in enhancing equity of opportunity in higher education.

The Ad Hoc Council on Public Administration, established in an attempt to lay out a basic outline for reorganizing government activities in the age of financial stringency, recommended in 1982 that the total amount of the Current Cost Subsidy be constrained at the present level.[32] On the other hand, it recommended augmenting funds designated for particular research and education projects, and the enhancement of scholarship programs. The direction suggested here in fact corresponded to some of the actual trends observed since the end of the 1970s. The Ad Hoc Council on Education adopted in principle a similar direction. In its final report in 1987, it recommended: "...to maintain and substantiate the present Current Cost Subsidy, while substantially expanding subsidies to unique education and research projects".[33] Because of its basic stance to advocate for greater resources devoted to education, the report still recommends "substantiation" of the Current Cost Subsidy. Nonetheless, the emphasis appears to have been laid upon enhancing grants for particular educational and research projects of better qualities.

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30 The revision in School Education Law may have arguably constituted an infringement upon the principle of freedom in education, but there were no major complaint from private institutions. One may possibly interpret this conspicuous silence as a sign that the private institutions in fact welcomed the change.

31 Masakazu Yano, "Shigaku Josei no Keizai Bunseki" [An Economic Analysis of the Subsidy to Private Institutions of Higher Education], Daigaku Ronshuu 13 (1984), pp.39-58; Shogo Ichikawa, "Hiyo Futan to Shingaku Kikai" [Financial Burden and Opportunity for Higher Education], Bulletin of Institute for Higher education 8 (1988), pp.61-72.

32 Ad Hoc Council on Public Administration, Basic Recommendations, 1982, p.32.

33 Ad Hoc Council on Education, The Fourth (Final) Report, 1987, Chapter 3, Section 2.

4.4 NON-INSTITUTIONAL SUBSIDIES

4.4.1 Research Grants

Because of the limited growth of revenues, per-faculty expenditure in the national institutions increased only moderately in the last fifteen years. Appendix Table B-8 indicates that current expenditure per faculty member rose slightly in the 1970s, but has remained almost stable since then. Considering the increasing dependence of research upon sophisticated equipments which consume enormous facilities and manpower, the limited growth in available funds should be interpreted as indicative of deteriorating financial conditions for research. The seriousness is reflected in the increasing share of over-heads - such as utilities costs - in current expenditures of the national universities. These factors have created, particularly in the public institutions, acute needs of additional funds for research activities.

In order to respond to the needs, the national expenditure for the Science Research Grants has been increasing steadily (Appendix Table A-5 and A-6). From 1970 to 1980, the expenditure increased by 2.2 times in real prices. The trend of increase continued into the 1980s, when the other higher education expenditures had to stagnate or even decline, raising the level by another 18 percent by 1985. Nonetheless, the margin of increase (¥ 10 billions) was minute relative to the total amount of national higher education expenditure (¥ 1,432 billions in 1985). It is all too clear that the Science Research Grants have not even come close to compensating for the loss in real values of the transfer to the NSSA, or that of the Current Cost Subsidy to private institutions. Meanwhile, reflecting the mounting needs for outside source of research funds, the application for Science Research Grants increased at even greater rates. As a result, the chance of receiving grants among applicants has been declining over the past decade (Appendix Table A-8).

As a result of stagnant subsidies to the national institutions and the limited growth of available Science Research Grants, higher education institutions have failed to catch up the other types of organizations in supporting research. A recent survey has indicated that, for the period from 1980 to 1985, averaged research expenditures per researcher in higher education institutions increased only by 11 percent in current prices, compared to 36 percent in research institutes or 41 percent in private corporations.[34] Another source showed that the share of higher education institutions in the total expenditures on research and development has declined significantly from 24 percent in 1981 to 20 percent in 1986.[35] Even though these indicators suffer from definition problems, they do indicate that the financial constraints are creating increasingly serious obstacles to academic research in higher education. There have been persistent requests from academic organizations and associations of higher education institutions for substantial expansion of the

34 Kagaku Gijutsuchou [Agency for Science and Technology], Indicators of Science and Technology, 1986 edition, Tokyo: Okurasho Insatsukyoku, p.16.

35 Soumucho Tokeikyoku, Shouwa 62-nendo Kagaku Gijutsu Kenkyuu Chousa. 1988.

government appropriation for the Science Research Grants. The recent final report of the Ad Hoc Council on Education also made a recommendation for increased expenditure on research grants. But it stopped short of setting out any specific goals or institutional reforms.

4.4.2 Student Aid

In the favorable fiscal condition in the 1970s, the government contribution to the Japan Scholarship Foundation grew steadily. Appendix Table A-6 shows that from 1970 to 1980 the lending to the J.S.F. in real prices multiplied by as much as 2.4 times. Consequently there were significant qualitative improvements in the provided loans. Major increases in the number of loans over this period were those of the "Special" loans, which offered substantially higher monthly amounts than the regular ones. By 1980, three-fifths of the recipients were receiving the "Special" type. Moreover, since the postwar period there had been an implicit policy to augment the amounts of loans when the tuition in national institutions was raised at a corresponding rate. Since tuition raises took place every few years in this period, the monthly rates had to be increased substantially. The amounts of loans for private college students were also raised at comparable rates, even though the tuition levels at private institutions were relatively stable in the first half of the 1970s. As a result the deficit of the annual amount of the loans over tuition (loan-tuition gap) for those students shrank temporarily. On the other hand, over the 1970s the recipients of the Japan Scholarship Foundation loans increased only moderately in number (1.3 times), and not to the extent to surpass the magnitude of enrollment expansion. As a result the chances of receiving the J.S.F. loans remained almost stable - in the range between 9 and 10 percent for the under-graduate students in four-year institutions, and around the 4-percent level for those in two-year institutions (Appendix Table C-5).

In the 1980s the amounts of individual loans had to be continually increased, just in order to keep pace with the sharp increases in tuitions in the public and private institutions. Accordingly, the total government appropriation for the Japan Scholarship Foundation continued increasing in real prices until the beginning of the 1980s, when the other expenditures had already started declining due to the mounting pressure of financial stringency. It was clear, however, that there was little prospect to augment further the funds from the General Accounts to student aid. Meanwhile, the rapidly increasing tuition levels since the mid-1970s inflated the demand for loans. In an attempt to solve this dilemma, the Ad Hoc Research Commission on Public Administration recommended in its First Report[36] of 1981 the establishment of a new type of J.S.F. loans, which would be financed by sources other than the general expenditure of the government, and lent to the student with interest. The recommendation was materialized in 1984 by creation of the Type II loans which, as described in Section 3, entail pre-determined rate of interest in repayment. At the same time, the Japan Scholarship Foundation started borrowing the corresponding funds from the Fiscal Investment and Loan Fund. The number of the type II loans have expanded substantially in recent years.

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36 Rinji Gyousei Chousakai [Ad Hoc Commission on Public Administration], Dai Ichiji Toushin [The First Report], 1981, p.21.

There have been substantial criticisms against the introduction of fixed-interest loans. At the same time as the type II loans were instituted, the Diet unanimously resolved that the free-interest loans will have to stay as the basis of the scholarship system; the fixed-interest loans should be considered only as a complement to the free-interest loans, and may be abolished when fiscal conditions turned favorable. There have been also concerns about the recent slow growth of the amounts of loans in comparison to tuition increase. The consequence is reflected in the widening tuition-loan gap for the students in private institutions (see Section 3.3). It appears as if the conventional policy to match the loans with tuition increases has practically been abandoned in the 1980s. The Ad Hoc Council on Education in fact acknowledged the rising social concerns on the difficulty in paying for the costs of college education, thereby calling for enhancement of the scholarship programs.

* Given the sharp increases in tuition levels at private and national institutions, and the limited number of available JSF loans, one should anticipate deterioration of the status in equity of opportunity since 1970. With this respect evidences are mixed. The biennial Student Living Survey by the Ministry of Education - the official data regarding the relation between attendance and family income - in fact indicates the opposite to what one would anticipate. The distributions of students by family income-class estimated from the data showed that the share of students from the lowest quintile-class has *increased* since 1970 (Appendix Table C-9). Moreover, the same estimates indicated that the chances of attending at a higher education institution are almost equal for all the quintile family income-classes, except for the highest. This appears to be the case not only with the students in national institutions but also with those at private institutions. If these were in fact the case, equity in opportunity has been improved despite the increases in tuition levels, and family income is no longer the major factor determining the attendance of higher education. There are, however, serious questions about the validity of this estimation. A few experts in the field are arguing that the MOESC data are probably based on samples that are unintentionally biased.[37] Alternative methods of estimation derived from other sources indicated greater differences in enrollment rate by family income. It is difficult at this point to make precise judgement about the immediate consequence of the past development on equity.

37 Joji Kikuchi, "Koutou Kyouiku Kikai no Hendou to Sokutei" [Changes in Opportunities of Education and Their Evaluation], Bullentine of the Faculty of Human Sciences, Osaka University 11 (1985), pp.197-213; Shogo Ichikawa, "Hiyou Futan to Shingaku Kikai" [Cost Burden and the Chance of Enrollment], Bulletin of the Institute for Higher Education 8 (1988), pp.61-72; and Motohisa Kaneko, "Kyouiku Kikai Kintou no Rinen to Genjitsu" [The Idea and Reality of Equal Opportunity in Education], Bulletin of the Japan Society for Sociology of Education 42 (1987), pp.38-50.

5 PROSPECTS

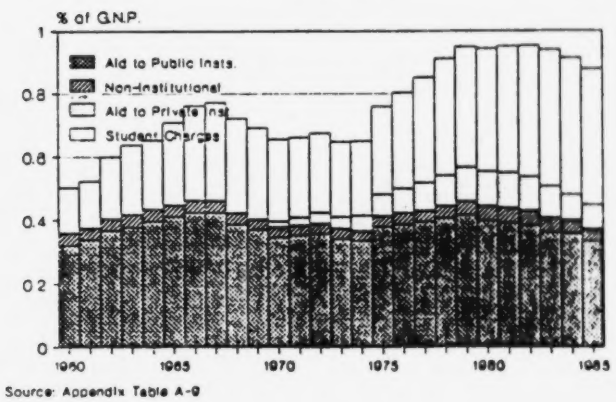
In an attempt to speculate upon prospects, this section first evaluates the consequences of the recent changes (subsection 5.1), summarizes some anticipated trends in the environment of higher education (5.2), and then examines some key factors determining future development (5.3).

5.1 CONSEQUENCES OF THE CHANGES SINCE 1970

Prior to the discussion about the prospect for future, it will be useful to assess the major consequences of the reforms and changes since 1970 upon the structure of higher education.

From a macroscopic view, the period since 1970 to the present can be divided into two distinctive phases. From 1970 to 1979 the size of government expenditure on higher education grew substantially, extending its share in the G.N.P. from 0.39 percent to 0.56 percent (Figure 7 below and Appendix Table A-9). The increase was mainly due to the Current Cost Subsidy to the private institutions, which started in 1970 and came to account for 0.11 percent of the G.N.P. by 1979. The change may be interpreted as the reflection of an implicit policy to rectify some of the structural problems created until the 1970s by gradually expanding public contribution. Such a policy was consistent with the general orientation of the government at the period to enhance expenditures directed to welfare and social services. If the trend had continued for a longer period, the pattern of higher education in Japan would have undergone a fundamental transformation. But under the prevalent pressure of fiscal stringency, the trend had to be reversed. Since 1979 the public expenditure on higher has been stagnating to the present and, consequently, its share in the G.N.P. fell again down to 0.45 percent by 1985. Having gone through these two phases, public contribution to higher education finance appears as if it were going back to where it had been two decades ago.

FIGURE 7
Flow of Funds to Higher Education
FY 1960-1985



Source: Appendix Table A-9

Nevertheless, the developments since 1970 have in fact brought about some important differences in the financial structure of the higher education system. Most profound has been the increase in the contribution from the household sector through student charges. From 1970 to 1985, the total revenue of higher education institutions from student charges tripled in real prices, and its share in the G.N.P. grew from 0.26 percent to 0.43 percent. It now accounts for the same proportion as the public expenditure in the total resources given to higher education. The tuition increases at national institutions made some contribution to this trend, but for the most part it was due to the consistent and substantial tuition raises at private institutions. It is important to note that the tuition raises started in the mid-1970s without any formal policy directly designated to the effect. Rather, they took place as a result of the behavior of individual private institutions which, taking advantage of the tight supply of places in higher education and the rising tuition at national institutions, attempted to secure their financial stability. But their effect on the level of total expenditure on higher education was considerable. It not only added substantial momentum to the increase in public expenditure on higher education in the 1970s, but also partly compensated for the decline of public expenditure in the 1980s. Because of these changes in private expenditure, the size of total higher education expenditure relative to the G.N.P. increased from 0.66 percent in 1960 to 0.94 percent by 1970, and even after the decline of the public expenditure it has been sustained at levels close to 0.90 percent.

An immediate consequence of these macroscopic changes has been general improvement of financial conditions at private institutions. Even though many private universities and colleges still run on substantial amounts of long-term debts according to official balance sheets, it is evident that they are also diverting significant proportions of their revenue to the accumulation of physical and financial assets. In this sense the private institutions have gained considerable financial viability, and that draws a sharp departure from their dire financial status around 1970. The improvement in finance is also reflected in the averaged expenditure per student, which increased from 1970 to 1985 by as much as 2.2 times in real prices. Consequently the difference in per-student expenditure from the national institutions, which was almost three times greater in 1970, has shrunk dramatically to about 30 percent. These changes have created a solid financial basis for eradicating the sharp disparities between the public and private institutions, and for upgrading institutions which constituted a low-quality segment of the higher education system. Hence, the developments since 1970 appear to have achieved a profound advance toward resolving one of the foremost issues at the beginning of the 1970s. Nonetheless, the improved financial conditions have not brought about corresponding improvements in tangible educational conditions. Most conspicuous in this context has been the slow growth in the size of full-time faculty. From 1970 to 1985, the averaged number of students per full-time faculty declined by only 26 percent, while per-faculty expenditure almost doubled in real prices. As a result, the difference from the national institutions with this respect has not shown appreciable reduction. Upgrading of the quality of educational conditions at private institutions still remains as an important issue.

In contrast, per-student expenditure at national universities and colleges showed only a slight increase in real prices over the period since 1970, because of the limited growth of the government subsidy to the National Schools Special Account. Even assuming that the national institutions were concentrating only upon under-graduate education, it implied that the quality of education in the national institutions has practically stagnated over this period. But in fact the consequences were more serious. To a large extent the national institutions are oriented towards graduate education and academic research, and over this period the proportion of graduate students in the national institutions has undergone a substantial increase, while research activities in various fields came to demand increasingly sophisticated and expensive equipments and facilities. These factors amplified greatly the demands for financial resources, thus creating significant gaps with the funds available within the the budgets of national institutions. Considering that the national institutions constitute the core of research and graduate education in Japan, and that growth of the Science Research Fund was limited, it implied that the academic research and under-graduate education in higher education institutions as a whole have been under increasing financial strain. Indeed, from 1980 to 1985 averaged research expenditures per researcher in higher education institutions increased only by 11 percent in current prices, compared to 36 percent in research institutes or 41 percent in private corporations.[38] There have been rising concerns about the declining viability of the research and education at higher education institutions, and the concern appears to be justified from financial viewpoints.

Since the developments in the past decade accompanied rapid increases in tuition levels at both public and private institutions, and the increase in the available numbers of scholarships has been limited, concern should be raised about the consequences on the status of equity of opportunity. As discussed in section 4.4, analytical evidences are conflicting with this respect. The biennial Student Living Survey indicates that equity in opportunity has been improved despite the increases in tuition levels, and family income is no longer the major factor determining college attendance. There are, however, serious questions about the validity of this estimation raised by a few experts in the field. It is difficult at this point to make precise judgements based on firm empirical evidences about the immediate consequences of the past development on equity. Nonetheless it is evident that the college costs are now forcing extraordinary sacrifices on the family. The discussion in Section 4.3 indicated that the size of student charges relative to per-capita G.N.P. has already reached its highest level in the postwar period. Considering that the range of families sending children to higher education institutions expanded substantially, this would imply that lower income families are seriously pressed by these expenditures. But even among medium-income families the financial burden is gaining its weight. The recent White Paper on the Nation's Living Standards has pointed out that educational expenditures of the family - accounting for 34 percent or even greater of income at the peak year - is currently one of the largest factors depressing the level of consumption.[39]

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38 Section 4.4.1.

39 Keizai Kikaku Cho [Economic Planning Agency], Kokumin Seikatsu Hakusho [White Paper on the Nation's Living Standards 1987, Chapter II, Section 1.

5.2 ENVIRONMENT FOR FUTURE CHANGES

The past experiences testify that macroscopic changes in the economy and society are one of the critical factors determining the development of higher education. The future changes in higher education finance will naturally be affected by those factors. The Japanese economy has currently entered a phase of steady recovery and growth, but its future in the long range is just as unpredictable as that of any other country. In an attempt to broaden the tax-base, the government is presently attempting to establish a type of value-added tax, but its effects on the fiscal conditions are again unpredictable. It is probably safe not to presume that the stringent fiscal conditions at the national level will be relaxed dramatically in the foreseeable future. Meanwhile, reflecting the aging of the population the demands for government services in health and other areas of welfare will keep growing. It is therefore unlikely that the current pressures to depress the higher education expenditure would fade away. Moreover, the general scepticism about the efficiency of government activities and the trend towards "privatization" of public activities will persist, inevitably creating serious obstacles to higher education finance.

Still, the potential roles of higher education in the society will by no means subside. In the past decade many Japanese business firms transformed from mere exporters of manufactured goods to full fledged international corporations encompassing operations in different areas of the world. At the same time the Newly Industrialized Countries are displacing the Japanese firms both abroad and domestic. These trends will certainly remain and intensify in the future. Under the circumstances the Japanese economy and society will be increasingly exposed to the international environment, and industry will undergo drastic restructuring. In responding to these needs under-graduate education will be required to give students, among others, the flexibility to adapt to changes and international perspectives. The pervasive and constant restructuring of industry, and the rapid development of technology in various fields, would substantially augment the potential demands for the opportunity of professional education for adults. Academic research will continue to be expected to play critical roles in international competition. In contrast to the past period when the development of higher education focused upon quantitative expansion, these expected changes will necessitate qualitative changes and further diversification of the function of higher education. That would not only require a large amount of resources, but also critical changes in the arrangements in financing.

One rather trivial, but still probably important, factor is the change in future enrollment. It is anticipated from the current demographic structure that the size of the 18-year old population, which stood at around 1.6 million for the 1980s, will steadily increase to over 2.0 million by 1992. The population will then decline sharply, eventually down to 1.5 million by the year 2000. Hence, unless enrollment rate rises significantly, there will be significant reduction in the total number of students entering higher education within the coming ten years. If that should happen, some private institutions may encounter difficulty in recruiting enough students, and consequently in

maintaining financial viability. There are rising concerns that relatively minor institutions would face the possibility of extinction. It appears certain that the volatility of future prospect will create significant influences upon the behavior of many institutions.

5.3 PROSPECTS

The final report from the Ad Hoc Council on Education issued in 1987 stopped short of laying out specific reforms for higher education. The absence of concrete plans reflects not the lack of acute problems, but rather the difficulty in reaching a consensus on relevant solutions. Thus the direction for reforms still remains as an open question, and one can only speculate on some key factors influencing future trends. It is remarkable in this context that the final report of the Ad Hoc Council for Education stated at least that the level of public contribution to higher education will have to be augmented.[40] This choice could have been supported partly by the results of international comparisons in public expenditure on higher education, which showed Japan lagging considerably behind many of the O.E.C.D. countries with this respect.[41] But more fundamentally, it can be interpreted as a reflection of the prevailing recognition that the quality of education and research in present Japanese higher education remains inadequate for facilitating the society to respond to the envisaged challenges in the future.

Nonetheless, the choice at the Council was obviously not a trivial one, and there is currently strong resistance to increases in government contribution to higher education. Besides the pressure from fiscal stringency, such forces are partly based on the perception that public institutions are managed inefficiently under public subsidy. But, they are also deeply rooted in the changes of higher education itself. With almost half of high school graduates attending some form of post-secondary education, and the economic benefits from graduating from college becoming marginal, college education has been seen increasingly as a matter of voluntary choice or "taste." Moreover, living standards of typical students have risen considerably, and to many eyes they constitute a leisure class. College education is becoming to appear not something that the society ought to financially encourage or discourage. Also it is frequently perceived that, given the present level of household incomes, even low income families would be able to send their children if they are willing to make enough "sacrifice." These factors corroborated to bring about skeptical views about the exigency of government contribution to supporting universities and colleges. Though seldom expressed explicitly, these views would potentially inflict a formidable influence upon actual formation of policies. It is therefore unlikely that the recommendation for increased level of public contribution by the Ad Hoc Council will be translated into actual policy, in so far as it implies simple expansion of conventional higher education expenditures. The public will have to be persuaded by proposing specific reforms and plans through which increased public expenditure would produce definite benefits to higher education and to the society.

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40 Ad Hoc Council for Education, Fourth (Final) Report, p.26.

41 Shogo Ichikawa, "Kotokyoiku Zaisei no Kokusai Hikaku [An International Perspective of Higher Education Finance]," Bulletin of Institute for Higher Education 8 (1988), pp.3-32.

Hence the issue of the level of public subsidy is closely related to its *form*. Especially relevant in this context is the distinction between institutional and non-institutional aid - the former consisting mainly of direct subsidies to national and private institutions, and the latter, scholarship funds and research grants. Institutional aid has constituted the mainstream of government contribution since the postwar period. In the 1960s, about 90 percent of the government expenditure on higher education was spent for directly maintaining and supporting the national institutions. Even the creation of the Current Cost Subsidy to private institutions in 1970 can be interpreted as an attempt to extend the scope of institutional aid to private institutions. In contrast, non-institutional aid has accounted for less than 10 percent of the total government expenditure on higher education, and this proportion has changed little in the past decade. The heavy reliance upon institutional aid was not without reasons. Institutional aid involves relatively low administrative costs, and makes it easy to secure accountability. Politically it tends to be supported by distinctive and influential interest groups. But more important, in the period of postwar development direct subsidy to national institutions had been the chief means in upgrading the newly established local national institutions. In the 1970s the public subsidy to private institutions was designated as the major vehicle in upgrading low-quality sector of higher education and in reducing public-private disparity in educational conditions. Indeed, institutional aid has proved to be effective, in so far as policy priorities were laid upon securing minimum standards among higher education institutions, and upon diminishing disparities among institutions.

In the coming decade the priority of higher education policy will shift away from eradication of disparity among institutions to inducement of individualization and diversification among institutions. Those goals will have to be achieved with limited amounts, if any, of additional resources. Under those circumstances, simple expansion of conventional institutional aid will turn out to be less effective than enhancement of various kinds of non-institutional aid, which would allow available funds to be concentrated upon strategic areas. For example, incentive grants designated for programs of faculty development or for creative instructional methods will be useful to induce qualitative improvements in under-graduate education. Increases in research grants will be practical in distributing funds to areas where there are particularly large needs for resources. Moreover, scholarship makes it possible to allocate available resources to low-income families and will be therefore more efficient than institutional subsidies in enhancing equity of opportunity. It will be also effective to expand enrollment of non-traditional students in the age of declining eligible population and increasing demand for opportunities of continuing education. The relatively obvious relations between the required costs and expected effects would also help justifying those expenditures on the ground of specific policy goals. In fact, the discussion in Section 4 indicated that the actual budget allocation in the past decade exhibited an inclination to favor non-institutional aids rather than institutional aids, but the magnitudes of the allocated budgets have been limited. It seems apparent that, because of the lack of support from powerful interest groups, non-institutional aid tends not to be given markedly large amounts of resources - unless it is clearly integrated in a comprehensive reform. For substantial increases in non-institutional aid, there will have to be an explicit redefinition of the policy.

It will be, however, neither likely nor desirable that such a shift in the form of public subsidies results in radical reduction in institutional subsidies. An obvious, but still significant reason is that both the private and national institutions will resist strongly against any significant reduction in public contribution. But more important, institutional aid is playing an essential role in maintaining financial stability, which would prove to be critical in securing efficiency in the long run. Indeed, past experiences show that volatility in future prospects prohibited private institutions from committing their financial resources to substantial investments for improvement of educational conditions. Since the private institutions are about to face another period of uncertainty due to fluctuation in the eligible population, significant reduction of the Current Cost Subsidy would reinforce such behaviors. Even for the public institutions, acute reduction in institutional aids will hinder the effective use of physical and human resources already accumulated in the organizations. Nonetheless, it is evident that both private and public institutions will have to change significantly in the coming decade if they wish to retain their viability as the major centers for education and research. The role of public finance will lie in providing incentives and resources for the changes towards directions desirable for the entire higher education system and for society, and in that context any additional funds will be better used if they are directed to relevant non-institutional aid. In order to exploit the opportunity created by those aid, it will be essential that individual institutions, both public and private, undertake significant reforms from inside. The determination and ability of the institutions demonstrated then would, in turn, convince the public of the merit of sparing a greater proportion of government expenditure for higher education.

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7 STATISTICAL APPENDIX

APPENDIX TABLES A

The Higher Education System and Government Expenditures

TABLE A-1

Higher Education Institutions and Their Enrollment, SY 1987
- By Type and by Control of Institution -

		Control of Institution				Percent Private
		All	National	Municipal	Private	(%)
NUMBER OF ESTABLISHMENT						
Four-Year Institutions		474	95	37	342	72.2
Two-Year Institutions		561	38	53	470	83.8
Technical Colleges		62	54	4	4	6.5
Special Training Schools	1)	2,581	159	166	2,256	87.4
ENROLLMENT (in thousands)						
Graduate Courses		54	34	2	18	33.3
Undergraduate						
Total		2,492	482	76	1,932	77.5
Four-year Institutions		1,880	443	55	1,381	73.5
Two-Year Institutions		437	18	21	397	90.8
Corresponding Courses		175	21	-	154	88.0
Post-Secondary						
Technical Colleges	2)	18	15	2	1	5.6
Special Training Schools	3)	483	17	23	442	91.5
All Levels		5539	1030	179	4325	78.1

Notes:
1) Post-Secondary courses only.
2) Total of students at 4th and 5th year.

Sources:
MOESC, Quick Report of the 1987 Fundamental School Survey.

TABLE A-2

Enrollment by Control of Institution, SY 1950-1987

- Four- and Two-Year Institutions -

FY	Graduate Students (thousand)					Under-Graduate (thousand)					Two-Year Institutions (thousan				
		Control			Prvt. Share		Control			Prvt. Share		Control			Prvt. Share
	All	National	Municipal	Private	(%)	All	National	Municipal	Private	(%)	All	National	Municipal	Private	(%)
1950	0	0	0	0	0.0	225	80	8	136	60.4	15	0	2	13	86.7
1951	1	0	0	1	100.0	312	120	13	179	57.4	36	0	5	31	86.1
1952	3	0	0	3	100.0	397	157	17	222	55.9	53	1	8	44	83.0
1953	6	2	0	4	66.7	441	168	21	252	57.1	64	1	10	53	82.8
1954	8	4	0	4	50.0	484	177	23	284	58.7	73	3	11	60	82.2
1955	10	5	0	5	50.0	513	181	25	308	60.0	78	4	11	63	80.8
1956	12	7	0	5	41.7	535	183	25	327	61.1	77	5	11	61	79.2
1957	13	7	0	5	38.5	551	182	26	343	62.3	73	5	10	58	79.5
1958	14	8	1	6	42.9	564	182	26	356	63.1	71	5	10	56	78.9
1959	15	9	1	6	40.0	582	183	27	373	64.1	76	6	11	59	77.6
1960	16	9	1	6	37.5	611	185	28	398	65.1	83	7	11	66	79.5
1961	17	9	1	6	35.3	654	191	29	433	66.2	93	8	12	74	79.6
1962	18	10	1	6	33.3	709	197	31	481	67.8	108	9	13	86	79.6
1963	21	12	2	7	33.3	773	203	33	537	69.5	122	9	13	100	82.0
1964	24	14	2	8	33.3	828	211	34	583	70.4	128	8	13	106	82.8
1965	28	17	2	9	32.1	909	222	36	651	71.6	148	8	14	126	85.1
1966	33	20	3	11	33.3	1,012	237	40	734	72.5	195	8	15	172	88.2
1967	36	22	2	12	33.3	1,124	253	43	828	73.7	235	8	16	211	89.8
1968	38	22	2	13	34.2	1,233	269	46	917	74.4	255	9	16	230	90.2
1969	39	23	2	14	35.9	1,315	279	48	989	75.2	263	10	16	237	90.1
1970	41	24	2	15	36.6	1,366	286	48	1,032	75.5	263	10	16	237	90.1
1971	42	23	2	16	38.1	1,427	293	47	1,087	76.2	275	10	16	249	90.5
1972	45	25	2	17	37.8	1,484	295	47	1,142	77.0	288	10	17	261	90.6
1973	46	26	2	18	39.1	1,551	307	47	1,197	77.2	310	11	17	282	91.0
1974	46	26	2	18	39.1	1,613	316	48	1,249	77.4	330	12	18	301	91.2
1975	48	28	2	18	37.5	1,686	330	49	1,307	77.5	354	13	18	323	91.2
1976	52	30	2	19	36.5	1,740	342	49	1,348	77.5	365	14	18	333	91.2
1977	53	31	2	20	37.7	1,786	351	50	1,386	77.6	374	14	19	342	91.4
1978	53	32	2	19	35.8	1,809	359	50	1,400	77.4	380	14	19	347	91.3
1979	53	32	2	19	35.8	1,793	366	49	1,377	76.8	374	14	19	341	91.2
1980	54	33	2	19	35.2	1,781	374	50	1,358	76.2	371	15	19	337	90.8
1981	56	34	3	19	33.9	1,767	381	50	1,336	75.6	372	15	19	338	90.9
1982	59	36	3	20	33.9	1,759	389	50	1,320	75.0	374	16	20	338	90.4
1983	62	38	3	21	33.9	1,772	398	51	1,324	74.7	379	17	20	342	90.2
1984	66	41	3	22	33.3	1,777	402	51	1,324	74.5	382	17	21	344	90.1
1985	70	43	3	24	34.3	1,779	406	52	1,321	74.3	371	18	21	333	89.8
1986	74	46	3	25	33.8	1,805	415	53	1,337	74.1	396	18	21	357	90.2
1987	79	49	3	26	32.9	1,856	428	54	1,374	74.0	438	19	21	398	90.9

Source:
MOESC, Fundamental School Survey, various years.

TABLE A-3

Enrollment by Field of Study and by Control of Institution
- Undergraduate Students in Four-Year Institutions, as of May 1987 -

	Enrollment by Control (persons)				Private Share (%)
	All	National	Municipal	Private	
Total	1,806,027	402,029	50,270	1,353,728	75.0
Letters	262,285	25,687	10,935	225,663	86.0
Social Sciences	700,753	63,165	17,294	620,294	88.5
Natural Sciences	61,076	24,946	1,796	34,334	56.2
Engineering	358,490	110,652	5,780	242,058	67.5
Agriculture	61,417	30,207	1,229	29,981	48.8
Health-Related					
Total	118,949	38,830	6,450	73,669	61.9
Medicine	53,036	28,366	4,204	20,466	38.6
Dentistery	20,904	5,256	729	14,919	71.4
Pharmacology	37,633	4,324	1,418	31,891	84.7
Others	7,376	884	99	6,393	86.7
Merchant Marine	1,601	1,601	0	0	-
Home Economics	33,749	1,111	2,786	29,852	88.5
Education	138,015	88,961	1,512	47,542	34.4
Arts	45,529	2,362	2,068	41,099	90.3
Others	24,163	14,507	420	9,236	38.2

Source:
MOESC, Quick Report ofthe 1987 Fundamental School Survey (Higher Education), 1987, pp.3 - 4.

TABLE A-4

Major Government Appropriations for Higher Education, FY 1987

	Amount (Million Yen)	As % of G.D.P.	As % of National Government Higher Education Expenditure
G.N.P. at 1986	335,000,000	100.00	
Total Government Expenditure	54,101,000	16.15	
Ministry of Education	4,573,740	1.37	
Higher Education 1)	1,483,289	0.44	100.0
Transfer to the National Schools Special Account 2)	1,111,438		74.9
Current Cost Subsidy To Private H.E. Institutions	244,350		16.5
Lending to Japan Scholarship Foundation 3)	81,956		5.5
Science Research Grants	45,545		3.1

Source:

MOESC, Culture and Education Budgets, FY 1987.

G.N.P. at 1986 from the Economic Planning Agency, National Account Statistics, 1987.

Notes:

1) Other expenditures on higher education include: administrative costs at the Ministry of Education, Culture and Science; subsidy to local medical colleges (4.1 billion Yen); Subsidy to Research Facilities in in Private H.E. institutions (1.5 billion); the MECS expenditures for promotion of sciences other than Scientific Research Grants (7.2 billion); and the government appropreation to the Broadcasting University (6.1 billion).

2) Includes funds for the hospitals and research institutes attached to the national universities and colleges.

3) The Japan Scholarship Foundation loans include those for high school students.

TABLE A-5

Government Appropriations for Higher Education, FY 1960-1986

FY	Amount (Million Yen)					Percent Share				
	Total	Transfer to the National Schools Spcial Account	Science Research Grants	Current Costs Subsidy To Private H.E.Insts.	Japan Scholarship Foundation	Total	Transfer to NSSA	Science Res. Grants	Current Costs Subsidy	Japan Scholarship Foundation
1960	55,762	49,602	1,437	0	4,723	100.0	89.0	2.6	-	8.5
1961	71,865	64,624	1,850	0	5,391	100.0	89.9	2.6	-	7.5
1962	86,107	77,667	2,127	0	6,313	100.0	90.2	2.5	-	7.3
1963	102,554	92,179	2,339	0	8,036	100.0	89.9	2.3	-	7.8
1964	125,658	114,514	2,551	0	8,593	100.0	91.1	2.0	-	6.8
1965	146,912	134,560	3,411	0	8,941	100.0	91.6	2.3	-	6.1
1966	175,767	161,480	3,787	0	10,500	100.0	91.9	2.2	-	6.0
1967	206,146	188,912	4,186	0	13,048	100.0	91.6	2.0	-	6.3
1968	223,886	204,568	5,000	0	14,318	100.0	91.4	2.2	-	6.4
1969	250,914	229,733	6,000	0	15,181	100.0	91.6	2.4	-	6.1
1970	290,533	253,702	7,200	13,220	16,411	100.0	87.3	2.5	4.6	5.6
1971	330,069	284,878	8,600	19,840	16,751	100.0	86.3	2.6	6.0	5.1
1972	391,873	329,181	10,000	30,102	22,590	100.0	84.0	2.6	7.7	5.8
1973	463,571	383,073	11,800	43,382	25,316	100.0	82.6	2.5	9.4	5.5
1974	554,789	448,051	14,000	64,000	28,738	100.0	80.8	2.5	11.5	5.2
1975	714,232	561,185	16,800	100,707	35,540	100.0	78.6	2.4	14.1	5.0
1976	834,014	645,147	19,500	129,007	40,360	100.0	77.4	2.3	15.5	4.8
1977	962,474	733,446	22,600	160,500	45,928	100.0	76.2	2.3	16.7	4.8
1978	1,109,461	831,289	26,500	197,500	54,172	100.0	74.9	2.4	17.8	4.9
1979	1,258,283	926,319	30,500	235,500	65,964	100.0	73.6	2.4	18.7	5.2
1980	1,332,165	958,699	32,500	260,500	80,466	100.0	72.0	2.4	19.6	6.0
1981	1,417,594	1,007,710	35,800	283,500	90,584	100.0	71.1	2.5	20.0	6.4
1982	1,449,277	1,036,920	38,000	283,500	90,857	100.0	71.5	2.6	19.6	6.3
1983	1,424,155	1,017,299	39,500	277,000	90,356	100.0	71.4	2.8	19.5	6.3
1984	1,442,258	1,071,688	40,500	243,850	86,220	100.0	74.3	2.8	16.9	6.0
1985	1,432,287	1,062,660	42,000	243,850	83,777	100.0	74.2	2.9	17.0	5.8
1986	1,448,290	1,080,280	43,500	243,850	80,660	100.0	74.6	3.0	16.8	5.6
1987	1,482,824	1,111,438	45,080	244,350	81,956	100.0	75.0	3.0	16.5	5.5

Source:
MOESC, Educational Budgets of the Central and Local Governments, various years.

TABLE A-6

Indices of Government Appropriations for Higher Education, FY 1960-1986

FY	Real Price Index (FY 1971 = 100)					As % of G.N.P.				
	Total	Transfer to NSSA	Science Research Grants	Private Instns. Current Costs Subsidy	Japan Scholarship Foundation	Total	Transfer to NSSA	Science Research Grants	Private Instns. Current Costs Subsidy	Japan Scholarship Foundation
1960	27.8	28.7	27.5	0.0	46.4	0.36	0.32	0.01	-	0.03
1961	33.2	34.6	32.9	0.0	49.1	0.38	0.34	0.01	-	0.03
1962	38.4	40.2	36.5	0.0	55.5	0.41	0.37	0.01	-	0.03
1963	43.9	45.7	38.4	0.0	67.8	0.42	0.38	0.01	-	0.03
1964	51.5	54.3	40.1	0.0	69.4	0.43	0.40	0.01	-	0.03
1965	62.3	66.2	55.5	0.0	74.8	0.45	0.41	0.01	-	0.03
1966	71.0	75.6	58.8	0.0	83.6	0.46	0.43	0.01	-	0.03
1967	78.4	83.2	61.1	0.0	97.8	0.46	0.42	0.01	-	0.03
1968	80.9	85.7	69.4	0.0	102.0	0.42	0.39	0.01	-	0.03
1969	86.4	91.7	79.3	0.0	103.0	0.40	0.37	0.01	-	0.02
1970	93.0	94.1	88.4	70.4	103.5	0.40	0.35	0.01	0.02	0.02
1971	100.0	100.0	100.0	100.0	100.0	0.41	0.35	0.01	0.02	0.02
1972	112.3	109.3	110.0	143.5	127.6	0.42	0.36	0.01	0.03	0.02
1973	117.7	112.7	115.0	183.2	126.7	0.41	0.34	0.01	0.04	0.02
1974	116.6	109.1	114.9	223.7	119.0	0.41	0.33	0.01	0.05	0.02
1975	139.4	126.9	125.8	327.0	136.7	0.48	0.38	0.01	0.07	0.02
1976	152.0	136.2	136.4	391.1	144.9	0.50	0.39	0.01	0.08	0.02
1977	165.7	146.3	149.4	459.8	155.8	0.52	0.40	0.01	0.09	0.02
1978	182.3	158.2	167.1	539.8	175.4	0.54	0.41	0.01	0.10	0.03
1979	200.7	171.2	186.7	624.9	207.3	0.57	0.42	0.01	0.11	0.03
1980	204.6	170.6	191.6	665.7	243.5	0.55	0.40	0.01	0.11	0.03
1981	211.0	173.8	204.5	702.0	265.7	0.55	0.39	0.01	0.11	0.04
1982	211.8	175.6	213.2	689.3	261.7	0.54	0.38	0.01	0.11	0.03
1983	206.6	171.0	219.9	668.4	258.2	0.51	0.36	0.01	0.10	0.03
1984	206.5	177.8	222.5	580.8	243.2	0.48	0.36	0.01	0.08	0.03
1985	201.7	173.3	227.0	571.2	232.4	0.45	0.33	0.01	0.08	0.03
1986	-	-	-	-	-	0.44	0.33	0.01	0.07	0.02
1987	-	-	-	-	-	0.43	0.32	0.01	0.07	0.02

Notes:
Real price indices were derived through using G.N.P. deflators.

Source:
MOESC, Educational Budgets of the Central and Local Governments, various years.
G.N.P. and G.N.P. deflators are from I.M.F., International Financial Statistics, 1988.

TABLE A-7

Economic Growth and Higher Education Expenditures, FY 1960-1986

FY	Real Price Indices (FY 1971 = 100)			Percent Shares (%)		
	G.N.P.	National Budget	National Expenditure for Higher Education	Budget in G.N.P.	H.E.Exp. in Budget	National H.E. Expenditure in G.N.P.
	(1)	(2)	(3)	(2)/(3)	(3)/(2)	(3)/(1)
1970	95.9	89.8	92.8	11.22	3.53	0.40
1971	100.0	100.0	100.0	11.99	3.42	0.41
1972	108.4	118.7	112.1	13.12	3.23	0.42
1973	117.0	132.5	117.6	13.57	3.03	0.41
1974	115.3	137.9	116.4	14.33	2.89	0.41
1975	118.4	139.0	139.4	14.06	3.43	0.48
1976	124.2	153.5	152.0	14.81	3.38	0.50
1977	130.8	172.7	165.7	15.82	3.28	0.52
1978	137.6	193.3	182.2	16.84	3.22	0.54
1979	144.9	216.2	200.7	17.88	3.17	0.57
1980	151.0	229.3	204.6	18.19	3.05	0.55
1981	158.4	239.7	211.0	18.14	3.01	0.55
1982	161.4	237.5	211.8	17.64	3.05	0.54
1983	166.7	252.0	206.6	18.12	2.80	0.51
1984	175.1	252.0	206.5	17.25	2.80	0.48
1985	183.1	252.6	201.7	16.53	2.73	0.45
ANNUAL GROWTH RATE IN REAL PRICES (%)						
1970-75	4.3	9.1	8.5			
1975-80	5.0	10.5	8.0			
1980-85	3.9	2.0	-0.3			

Sources:
Budget Figures from Zaisei Chousa Kai, Kuni no Yosan, various years.
G.N.P. and G.N.P. Deflator from I.M.F., International Monetary Statistics, vatirous years.

TABLE A-8

Science Research Grants

(a) DISTRIBUTION BY TYPE AND CONTROL OF INSTITUTION - FY 1986

	Application		Awarded Grants		Rate Granted
	Number (1)	Percent Share	Number (2)	Percent Share	(2)/(1) x 100
Four-Year Institutions					
National	33,625	66.5	10,099	72.3	30.0
Local	2,489	4.9	656	4.7	26.4
Private	11,328	22.4	2,443	17.5	21.6
Two-Year Institutions	739	1.5	130	1.0	17.6
Technical Colleges	615	1.2	88	0.6	14.3
Governmental Agencies	575	1.1	197	1.4	34.3
Private Institutions	1,208	2.4	352	2.5	29.1
Total	50,579	100.0	13,965	100.0	27.6

(b) APPLICATION AND AWARDED GRANTS - FY 1976-1986

FY	Total Number of Qualified Researchers	Number of Appli-cation	Number of Awarded Grants	Rate of Success among 1st Year Application (%)	Amount of Grants	
					Awarded Amount (100 Mil. Yen)	Ratio to Proposed Amount (%)
1976	112,000	31,000	9,000	26.4	195	69.1
1977	115,000	35,000	11,000	25.5	226	70.7
1978	118,000	37,000	11,000	25.0	265	75.2
1979	121,000	41,000	12,000	25.4	305	77.7
1980	123,000	42,000	12,000	23.7	325	78.0
1981	126,000	43,000	13,000	23.6	358	75.4
1982	128,000	45,000	14,000	24.5	380	74.8
1983	130,000	48,000	14,000	24.4	395	71.6
1984	132,000	52,000	14,000	22.2	405	72.3
1985	134,000	53,000	15,000	23.2	420	73.4
1986	136,000	55,000	16,000	23.7	435	71.4

TABLE A-9

Estimated Flow of Funds to Higher Education, FY 1960-1985
- As % of G.N.P. -

FY	Estimated Flow of Funds by Source and Form						Semi-Totals			TOTAL
	Public Expenditures				Student Charges		Public Institutional	Public Non-Institutional	Student Charges	
	Institutional Subsidy to:		Non-Institutional Subsidy for:							
	Public Insts. (1)	Private Insts. (2)	Research Grants (3)	Scholarship (4)	Public Insts. (5)	Private Insts. (6)	(1)+(2)	(3)+(4)	(5)+(6)	
1960	0.32	0.00	0.01	0.03	0.01	0.13	0.32	0.04	0.14	0.50
1961	0.34	0.00	0.01	0.03	0.01	0.14	0.34	0.04	0.15	0.52
1962	0.37	0.00	0.01	0.03	0.01	0.18	0.37	0.04	0.19	0.60
1963	0.38	0.00	0.01	0.03	0.01	0.21	0.38	0.04	0.22	0.64
1964	0.40	0.00	0.01	0.03	0.01	0.21	0.40	0.04	0.22	0.65
1965	0.41	0.00	0.01	0.03	0.01	0.25	0.41	0.04	0.26	0.71
1966	0.43	0.00	0.01	0.03	0.01	0.29	0.43	0.04	0.30	0.76
1967	0.42	0.00	0.01	0.03	0.01	0.30	0.42	0.04	0.31	0.77
1968	0.39	0.00	0.01	0.03	0.01	0.29	0.39	0.04	0.30	0.72
1969	0.37	0.00	0.01	0.02	0.01	0.28	0.37	0.03	0.29	0.69
1970	0.35	0.02	0.01	0.02	0.01	0.25	0.36	0.03	0.26	0.66
1971	0.35	0.02	0.01	0.02	0.01	0.25	0.38	0.03	0.25	0.66
1972	0.36	0.03	0.01	0.02	0.01	0.24	0.39	0.04	0.25	0.67
1973	0.34	0.04	0.01	0.02	0.01	0.23	0.38	0.03	0.24	0.65
1974	0.33	0.05	0.01	0.02	0.01	0.23	0.38	0.03	0.24	0.65
1975	0.38	0.07	0.01	0.02	0.01	0.27	0.45	0.04	0.28	0.76
1976	0.39	0.08	0.01	0.02	0.01	0.29	0.47	0.04	0.30	0.80
1977	0.40	0.09	0.01	0.02	0.01	0.32	0.48	0.04	0.33	0.85
1978	0.41	0.10	0.01	0.03	0.02	0.35	0.50	0.04	0.37	0.91
1979	0.42	0.11	0.01	0.03	0.02	0.36	0.52	0.04	0.38	0.95
1980	0.40	0.11	0.01	0.03	0.02	0.37	0.51	0.05	0.39	0.94
1981	0.39	0.11	0.01	0.04	0.02	0.37	0.50	0.05	0.40	0.95
1982	0.38	0.11	0.01	0.03	0.03	0.39	0.49	0.05	0.41	0.95
1983	0.36	0.10	0.01	0.03	0.03	0.40	0.46	0.05	0.43	0.94
1984	0.36	0.08	0.01	0.03	0.03	0.40	0.44	0.04	0.43	0.91
1985	0.33	0.08	0.01	0.03	0.03	0.40	0.41	0.04	0.43	0.88

Notes:
(1) Transfer from the General Account to the National Schools Special Account.
(2) Current Cost Subsidy to private four- and two-year institutions.
(3) Expenditure for Science Researches Grants.
(4) Lending from the General Account to the Japan Scholarship Foundation.
(5) Tuition and other student charges of the national and local institutions.
(6) Tuition and other student charges of the private four- and two-year institutions.

Sources:
(1) through (4), from the National Budget, various years.
(5) from Fundamental School Survey, various years.
(6) from MOESC, Survey Report on Financial Conditions of Private Schools, various years.

APPENDIX TABLES B

Finances of Higher Education Institutions

TABLE B-1

The National Schools Special Account, Budget for FY 1987

(a) REVENUE

Source	Amount (million Yen)	Share (%)
Transfer from the General Account	1,111,438	63.1
Borrowing	34,000	1.9
Revenue of Attached Hospitals	357,027	20.3
Tuition and Other Fees	154,300	8.8
Sale of School Properties	38,991	2.2
Receit from Installment	2,300	0.1
Miscellaneous Revenue	41,325	2.3
Surplus from the Previous FY	21,351	1.2
TOTAL	1,760,734	100.0

(b) EXPENDITURE

Purpose	Amount (million Yen)		Share (%)
National Schools	1,044,362		59.3
Administration		777,743	
Research and Education		210,150	
Special Equipments		33,090	
Welfare of Students		5,334	
Equipment and Facilities		18,045	
Attached Hospitals	415,165		23.6
Administration		168,988	
Research and Education		18,628	
Medical Practices		220,546	
Equipment and Facilities		7,003	
Attached Research Institutes	120,201		6.8
Administration		47,001	
Research		15,643	
Equipment and Facilities		3,624	
Special Projects		53,933	
Facilities	129,464		7.4
Construction of Vessels	4,083		0.2
Transfer to National Bond Account	46,951		2.7
Contingency Allowance	500		0.0
GRAND TOTAL	1,760,734		100.0

Source:
MOESC, Education and Culture Budgets, FY 1987, pp.302-303.

TABLE B-2

Changes in the National Schools Special Account, FY 1964-1987

(a) REVENUES

FY	Amount (Million Yen)					Distribution (%)				
	Transfer from the General Account	Tuition and Fees	Revenue of Attached Hospitals	Others	Total	Transfer	Tuition	Hospitals	others	Total
1964	114,514	3,195	17,409	6,536	139,459	82.1	2.3	12.5	4.7	100.0
1970	253,701	6,015	37,493	13,586	305,380	83.1	2.0	12.3	4.4	100.0
1971	258,976	6,014	37,493	13,585	312,854	82.8	1.9	12.0	4.3	100.0
1972	294,682	6,050	39,095	17,101	350,878	84.0	1.7	11.1	4.9	100.0
1973	342,139	8,252	46,948	17,008	408,895	83.7	2.0	11.5	4.2	100.0
1974	401,090	12,173	51,424	23,840	482,554	83.1	2.5	10.7	4.9	100.0
1975	515,221	14,148	71,219	38,309	640,849	80.4	2.2	11.1	6.0	100.0
1976	583,012	20,721	86,155	39,553	745,820	78.2	2.8	11.6	5.3	100.0
1977	652,356	24,433	102,406	54,884	850,546	76.7	2.9	12.0	6.5	100.0
1978	750,267	34,528	122,422	62,834	976,223	76.9	3.5	12.5	6.4	100.0
1979	829,878	47,625	146,775	76,106	1,102,659	75.3	4.3	13.3	6.9	100.0
1980	926,238	58,880	162,498	85,667	1,223,003	75.7	4.8	13.3	7.0	100.0
1981	980,798	67,960	188,261	102,024	1,317,983	74.4	5.2	14.3	7.7	100.0
1982	1,014,323	78,995	216,047	129,236	1,399,606	72.5	5.6	15.4	9.2	100.0
1983	1,015,484	86,714	247,966	148,644	1,452,694	69.9	6.0	17.1	10.2	100.0
1984	1,015,645	98,324	276,734	187,579	1,514,258	67.1	6.5	18.3	12.4	100.0
1985	1,096,869	119,489	298,859	200,261	1,624,989	67.5	7.4	18.4	12.3	100.0
1986	1,080,280	142,790	331,608	237,567	1,675,455	64.5	8.5	19.8	14.2	100.0
1987	1,111,438	154,300	357,028	258,268	1,760,734	63.1	8.8	20.3	14.7	100.0

(b) EXPENDITURES

FY	Amount (Million Yen)					Distribution (%)				
	National Schools	Attached Research Insts.	Attached Hospitals	Others	Total	Schools	Res. Insts.	Hospitals	Others	Total
1964	80,108	10,368	21,539	27,444	139,459	57.4	7.4	15.4	19.7	100.0
1970	181,018	20,958	53,101	50,303	305,380	59.3	6.9	17.4	16.5	100.0
1971	186,363	20,960	54,794	50,737	312,854	59.6	6.7	17.5	16.2	100.0
1972	212,418	23,982	62,039	52,439	350,878	60.5	6.8	17.7	14.9	100.0
1973	247,103	28,151	72,913	60,728	408,895	60.4	6.9	17.8	14.9	100.0
1974	297,427	33,998	85,503	65,626	482,554	61.6	7.0	17.7	13.6	100.0
1975	394,287	43,869	114,782	87,911	640,849	61.5	6.8	17.9	13.7	100.0
1976	447,104	50,944	131,637	116,136	745,821	59.9	6.8	17.6	15.6	100.0
1977	507,955	59,923	155,524	127,144	850,546	59.7	7.0	18.3	14.9	100.0
1978	563,812	69,185	183,123	160,103	976,223	57.8	7.1	18.8	16.4	100.0
1979	619,383	74,136	211,496	197,644	1,102,659	56.2	6.7	19.2	17.9	100.0
1980	678,460	82,068	237,860	224,615	1,223,003	55.5	6.7	19.4	18.4	100.0
1981	733,966	89,603	273,616	220,798	1,317,983	55.7	6.8	20.8	16.8	100.0
1982	781,889	93,579	304,965	219,173	1,399,606	55.9	6.7	21.8	15.7	100.0
1983	808,556	94,784	325,507	223,847	1,452,694	55.7	6.5	22.4	15.4	100.0
1984	831,369	97,062	356,929	228,898	1,514,258	54.9	6.4	23.6	15.1	100.0
1985	939,841	100,052	377,279	207,817	1,624,989	57.8	6.2	23.2	12.8	100.0
1986	981,380	114,068	400,888	179,119	1,675,455	58.6	6.8	23.9	10.7	100.0
1987	1,044,365	120,201	415,167	181,001	1,760,734	59.3	6.8	23.6	10.3	100.0

Notes:
Both revenues and expenditures are budgets in the beginning of respective FY.

Source:
The National Budget, various years.

TABLE B-3

Finances of Private Institutions of Higher Education, FY 1985

(a) REVENUE

	Amount (Million Yen)			Percent Share in Total Revenue			Percent Share in General Income		
	All Institutions	Four-Year Insts.	Two-Year Insts.	All	Two-Year	Four-Year	All	Two-Year	Four-Year
General Income									
Student Charges	1,178,227	945,759	232,468	43.2	41.1	54.6	62.6	61.5	67.3
Fees	78,681	66,114	12,567	2.9	2.9	2.9	4.2	4.3	3.6
Gifts	51,987	46,041	5,946	1.9	2.0	1.4	2.8	3.0	1.7
Public Subsidy	271,563	231,235	40,328	9.9	10.0	9.5	14.4	15.0	11.7
Income from Assets	107,971	88,402	19,569	4.0	3.8	4.6	5.7	5.8	5.7
Sales of Property	164,219	134,904	29,315	6.0	5.9	6.9	8.7	8.8	8.5
Miscellaneous Income	29,456	24,196	5,260	1.1	1.1	1.2	1.6	1.6	1.5
Sub-Total	1,882,109	1,536,655	345,454	68.9	66.7	81.1	100.0	100.0	100.0
Auxiliary Business	546,551	538,303	8,248	20.0	23.4	1.9	-	-	-
Borrowing	301,028	228,661	72,367	11.0	9.9	17.0	-	-	-
TOTAL	2,729,690	2,303,620	426,070	100.0	100.0	100.0	-	-	-

(b) EXPENDITURE

	Amount (Million Yen)			Percent Share in Total Expenditure			Percent Share in Current Expenditure		
	All	4-Year	2-Year	All	4	2	All	4	2
Current Expenditure									
Wages and Salaries	1,086,544	927,069	159,475	45.6	46.2	42.7	66.2	64.9	74.5
Teaching Staff	539,582	442,016	97,566	22.7	22.0	26.1	32.9	31.0	45.6
Administrative Staff	430,470	385,185	45,285	18.1	19.2	12.1	26.2	27.0	21.2
Others	116,487	99,865	16,622	4.9	5.0	4.4	7.1	7.0	7.8
Education and Research	465,063	429,411	35,652	19.5	21.4	9.5	28.3	30.1	16.7
Over-Head Costs	90,484	71,517	18,967	3.8	3.6	5.1	5.5	5.0	8.9
Sub-total	1,642,093	1,427,997	214,096	69.0	71.2	57.3	100.0	100.0	100.0
Capital Expenditure	443,002	343,896	99,106	18.6	17.1	26.5	-	-	-
Building	323,682	239,420	84,262	13.6	11.9	22.5	-	-	-
Equipment	119,318	104,475	14,843	5.0	5.2	4.0	-	-	-
Redemption of Bonds	295,488	234,933	60,555	12.4	11.7	16.2	-	-	-
TOTAL	2,380,585	2,006,827	373,758	100.0	100.0	100.0	-	-	-

Source:
MOESC, Survey Report on Financial Condition of Private Schools, FY 1985, Table 2 (p.19).

TABLE B-4

Finances of Private Four-Year Institutions, FY 1971-1985

(a) GENERAL REVENUE BY SOURCE

	Amount (Billion Yen)					Distribution (%)				
	Total	Student Charges	Gift	Public Subsidy	Endowment	Total	Student Charges	Gift	Public Subsidy	Endowment
1971	211	160	26	19	6	100.0	75.8	12.3	9.0	2.8
1972	264	185	37	34	9	100.0	70.1	14.0	12.9	3.4
1973	316	205	44	51	15	100.0	64.9	13.9	16.1	4.7
1974	401	241	65	68	27	100.0	60.1	16.2	17.0	6.7
1975	515	308	87	93	27	100.0	59.8	16.9	18.1	5.2
1976	656	376	105	118	56	100.0	57.3	16.0	18.0	8.5
1977	742	459	98	146	39	100.0	61.9	13.2	19.7	5.3
1978	863	567	56	196	43	100.0	65.7	6.5	22.7	5.0
1979	937	635	44	222	37	100.0	67.8	4.7	23.7	3.9
1980	1,076	699	42	240	95	100.0	65.0	3.9	22.3	8.8
1981	1,213	765	54	259	136	100.0	63.1	4.5	21.4	11.2
1982	1,318	834	47	259	178	100.0	63.3	3.6	19.7	13.5
1983	1,422	903	45	255	219	100.0	63.5	3.2	17.9	15.4
1984	1,520	958	54	227	281	100.0	63.0	3.6	14.9	18.5
1985	1,537	1,012	46	231	248	100.0	65.8	3.0	15.0	16.1

(b) CURRENT EXPENDITURE BY PURPOSE

	Amount (Billion Yen)					Distribution (%)				
	Total	Faculty Compensation	Other Wages	Research	Administration	Total	Faculty Compensation	Other Wages	Research	Administration
1971	182	75	51	39	14	100.0	41.2	28.0	21.4	7.7
1972	226	86	71	53	13	100.0	38.1	31.4	23.5	5.8
1973	287	107	91	70	17	100.0	37.3	31.7	24.4	5.9
1974	391	143	129	97	23	100.0	36.6	33.0	24.8	5.9
1975	477	173	160	116	28	100.0	36.3	33.5	24.3	5.9
1976	578	204	194	147	32	100.0	35.3	33.6	25.4	5.5
1977	673	236	227	176	35	100.0	35.1	33.7	26.2	5.2
1978	763	262	257	204	39	100.0	34.3	33.7	26.7	5.1
1979	855	290	285	239	42	100.0	33.9	33.3	28.0	4.9
1980	969	316	320	280	53	100.0	32.6	33.0	28.9	5.5
1981	1,081	347	361	318	55	100.0	32.1	33.4	29.4	5.1
1982	1,197	373	409	354	62	100.0	31.2	34.2	29.6	5.2
1983	1,268	396	434	377	61	100.0	31.2	34.2	29.7	4.8
1984	1,344	416	458	402	67	100.0	31.0	34.1	29.9	5.0
1985	1,428	442	485	429	72	100.0	31.0	34.0	30.0	5.0

Source:
MOESC, Survey Report on Financial Conditions of Private Schools, various years.

TABLE B-5

Expenditure per Student by Field of Study and by Control, FY 1985

	Estimated Per-Student Expenditure (thousand Yen)				U.S.Dollar Equivalent (1 U.S.Dollar= 144yen)	
	Current and Capital	Current only	Wages only	Faculty Compen-sation	Current and Capital	Current only
NATIONAL INSTITUTIONS						
Humanities	1,283	1,093	799	562	8,912	7,592
Social Sciences	862	702	478	296	5,989	4,878
Natural Sciences	2,084	1,723	1,192	826	14,474	11,962
Engineering	1,624	1,354	916	581	11,277	9,404
Agriculture	2,430	2,016	1,372	888	16,876	13,999
Medicine and Dentistry	3,471	2,942	1,943	1,305	24,101	20,430
Pharmacology and Nursing	1,698	1,479	975	627	11,790	10,274
Merchant Marine	3,403	2,309	1,620	976	23,632	16,037
Education, Art, Home Ec.	1,470	1,191	842	584	10,206	8,272
Others	3,401	2,926	1,970	1,387	23,620	20,322
All Fields	1,777	1,477	1,009	670	12,337	10,258
PRIVATE INSTITUTIONS						
Humanities	940	714	553	326	6,531	4,956
Social Sciences	594	448	328	174	4,123	3,109
Natural Sciences	649	480	356	233	4,505	3,331
Engineering	1,063	794	574	341	7,383	5,517
Agriculture	1,131	921	627	358	7,851	6,394
Medicine and Dentistry	5,173	4,470	3,406	2,400	35,921	31,041
Pharmacology and Nursing	1,332	1,005	673	445	9,249	6,978
Merchant Marine	-	-	-	-	-	-
Education, Art, Home Ec.	1,054	758	575	346	7,320	5,262
Others	2,580	1,726	1,238	737	17,918	11,987
All Fields	977	751	556	335	6,782	5,212
PUBLIC/PRIVATE DIFFERENTIAL (RATIO)						
Humanities	0.73	0.65	0.69	0.58		
Social Sciences	0.69	0.64	0.69	0.59		
Natural Sciences	0.31	0.28	0.30	0.28		
Engineering	0.65	0.59	0.63	0.59		
Agriculture	0.47	0.46	0.46	0.40		
Medicine and Dentistry	1.49	1.52	1.75	1.84		
Pharmacology and Nursing	0.78	0.68	0.69	0.71		
Merchant Marine	0.00	0.00	0.00	0.00		
Education, Art, Home Ec.	0.72	0.64	0.68	0.59		
Others	0.76	0.59	0.63	0.53		
All Fields	0.55	0.51	0.55	0.50		

Source:
Estimated from MOECS, School Fundamental Survey, 1985; MOECS, Survey on Financial Status of Private Schools, FY 1985.

Notes:
The numbers of students include undergraduate and graduate students, with no weight attached. Costs incurred at the headquaters and libraries at the national institutions were appropriated among fields according to the number of students enrolled. Costs for Libraries at the private institutions were appropreited similarly.

TABLE B-6

Changes in Expenditure per Student, FY 1971-1985
- National and Private Institutions, Capital and Current Expenditures -

FY	Amount (thousand Yen)			1971 Real Price Index			As % of Per Capita G.N.P.		
	Total	Current	Capital	Total	Current	Capital	Total	Current	Capital
NATIONAL INSTITUTIONS									
1971	647	469	177	100	100	100	84.3	61.2	23.1
1972	711	508	203	105	103	110	82.8	59.1	23.7
1973	783	609	173	104	111	84	75.8	59.0	16.8
1974	1,040	797	243	111	117	94	85.3	65.4	19.9
1975	1,136	881	255	108	116	89	85.8	66.5	19.3
1976	1,237	949	288	108	114	92	82.9	63.6	19.3
1977	1,390	1,033	357	112	115	105	84.5	62.8	21.7
1978	1,517	1,078	440	118	115	125	84.7	60.2	24.5
1979	1,602	1,140	462	120	118	126	83.6	59.5	24.1
1980	1,677	1,216	461	116	116	117	81.7	59.2	22.5
1981	1,769	1,281	488	117	117	118	81.0	58.7	22.3
1982	1,690	1,295	395	109	115	93	74.4	57.0	17.4
1983	1,659	1,316	343	105	115	79	70.7	56.1	14.6
1984	1,756	1,453	303	109	124	68	70.6	58.4	12.2
1985	1,715	1,426	289	104	119	64	65.2	54.2	11.0
PRIVATE INSTITUTIONS									
1971	235	171	64	100	100	100	30.7	22.3	8.3
1972	274	202	72	111	113	107	31.9	23.5	8.3
1973	357	244	113	130	122	151	34.6	23.6	11.0
1974	430	317	113	126	127	121	35.3	26.0	9.3
1975	492	371	121	129	133	116	37.1	28.0	9.1
1976	560	430	130	134	141	115	37.5	28.8	8.7
1977	626	485	141	139	148	115	38.1	29.5	8.6
1978	674	536	138	144	157	108	37.6	29.9	7.7
1979	739	594	145	152	168	109	38.6	31.0	7.5
1980	879	685	194	168	179	136	42.8	33.4	9.5
1981	993	775	219	180	193	146	45.5	35.5	10.0
1982	1,052	871	181	186	212	117	46.3	38.4	7.9
1983	1,148	932	215	199	223	138	48.9	39.8	9.2
1984	1,215	983	231	207	230	145	48.8	39.5	9.3
1985	1,295	1,043	251	216	239	154	49.2	39.7	9.6

Source:
MOESC, Fundamental School Survey, various years; MOESC, Survey on Private School Finances.

Notes:
Estimated through dividing expenditures by total number of students including graduate students (no weight attached). Expenditures of private institutions include those on attached hospitals.

TABLE B-7

Changes in Student Charges, FY 1960-1985

YEAR	National Institutions			Private Institutions			National/Private Differential		
	Student Charges (Yen) (1)	Real Price Index (1971 =100)	As % of Per Capita G.N.P.	Student Charges (Yen) (2)	Real Price Index (1971 =100)	As % of Per Capita G.N.P.	Ratio (2)/(1)	Difference (2)-(1) in Current Prices	Difference (2)-(1) in 1971 Real Price Index
1960	10,199	114.6	5.9	43,191	55.3	24.9	4.2	32,992	47.6
1961	10,358	110.9	4.9	50,985	62.1	24.2	4.9	40,627	55.9
1962	10,362	104.1	4.6	68,606	78.4	30.2	6.6	58,244	75.2
1963	11,851	110.9	4.5	79,644	84.8	29.9	6.7	67,793	81.5
1964	12,888	115.8	4.2	86,012	88.0	28.2	6.7	73,124	84.4
1965	13,881	116.5	4.2	102,810	98.3	30.8	7.4	88,929	95.9
1966	17,502	139.8	4.5	118,538	107.8	30.4	6.8	101,036	103.7
1967	17,500	134.4	3.9	127,039	111.1	28.0	7.3	109,539	108.1
1968	17,114	124.8	3.2	130,762	108.6	24.7	7.6	113,648	106.5
1969	16,625	115.3	2.7	140,294	110.7	23.0	8.4	123,669	110.1
1970	16,493	106.1	2.3	143,956	105.4	20.4	8.7	127,463	105.3
1971	16,499	100.0	2.2	144,944	100.0	18.9	8.8	128,445	100.0
1972	22,154	128.5	2.6	159,216	105.1	18.5	7.2	137,062	102.1
1973	32,247	167.4	3.1	169,003	99.8	16.4	5.2	136,756	91.2
1974	37,508	156.4	3.1	190,414	90.4	15.6	5.1	152,906	81.9
1975	55,122	205.7	4.2	232,331	98.7	17.5	4.2	177,209	84.9
1976	63,043	215.2	4.2	274,712	106.8	18.4	4.4	211,669	92.8
1977	86,790	274.2	5.3	326,718	117.5	19.9	3.8	239,928	97.4
1978	100,697	306.5	5.6	399,678	138.5	22.3	4.0	298,981	116.9
1979	126,022	370.3	6.6	454,448	152.0	23.7	3.6	328,426	123.9
1980	146,037	397.2	7.1	507,633	157.2	24.7	3.5	361,596	126.3
1981	167,891	435.4	7.7	564,653	166.7	25.9	3.4	396,762	132.2
1982	184,355	465.6	8.1	622,504	179.0	27.4	3.4	438,149	142.1
1983	203,092	503.6	8.7	671,194	189.5	28.6	3.3	468,102	149.1
1984	241,079	585.0	9.7	711,437	196.5	28.7	3.0	470,358	146.6
1985	240,600	572.1	9.1	752,668	203.7	28.6	3.1	512,068	156.4

Source:

HOESC, Fundamental School Survey, various years; idem, Survey on Private School Finances, various years.

TABLE B-8

Factors of Per-Student Expenditure by Control of Institutions
- FY 1971-1985 -

FY	Current Expenditure per Student (1000 Yen)		Number of Students per Faculty		Current Expenditure per Full-Time Faculty (1000 Yen)	
	In Current Prices	In 1971 Real Price	Full-Time Faculty	Full- and Part-Time Faculty	In Current Prices	In 1971 Real Price
NATIONAL INSTITUTIONS						
1971	468	468	8.4	6.3	3,924	3,924
1972	505	483	8.3	6.2	4,190	4,006
1973	606	519	8.4	6.1	5,069	4,339
1974	795	546	8.4	6.1	6,656	4,577
1975	880	542	8.5	6.0	7,496	4,613
1976	948	534	8.6	6.0	8,157	4,594
1977	1,031	537	8.6	6.0	8,911	4,645
1978	1,078	541	8.6	6.0	9,271	4,653
1979	1,140	552	8.5	5.8	9,734	4,716
1980	1,215	545	8.5	5.9	10,326	4,631
1981	1,281	548	8.5	5.9	10,898	4,664
1982	1,294	539	8.5	6.0	11,033	4,596
1983	1,316	538	8.6	6.0	11,315	4,630
1984	1,453	582	8.6	6.0	12,560	5,029
1985	1,424	558	8.7	6.0	12,433	4,874
PRIVATE INSTITUTIONS						
1971	165	165	31.0	17.1	5,116	5,116
1972	195	186	31.5	16.9	6,145	5,875
1973	236	202	31.6	16.9	7,463	6,388
1974	309	212	31.5	16.8	9,727	6,690
1975	360	221	31.5	16.7	11,350	6,985
1976	423	238	31.1	16.6	13,135	7,398
1977	479	250	30.8	18.5	14,758	7,693
1978	537	270	30.2	16.2	16,211	8,137
1979	612	297	28.9	15.5	17,667	8,561
1980	704	316	27.9	15.2	19,634	8,806
1981	798	341	26.9	14.3	21,436	9,173
1982	893	372	26.0	13.8	23,188	9,660
1983	942	386	25.6	13.6	24,163	9,887
1984	998	400	25.2	13.2	25,152	10,071
1985	1,062	416	24.6	12.9	26,096	10,230

Source:
MOESC, Fundamental School Survey, various years; MOESC, Survey on Financial Status of Private Schools, various years.

TABLE B-9

Corporative Research Grants and Contracts to National Institutions
- FY 1974-1985 -

FY	Corporate Research Grants and Contracts				Total Expenditure of National Schools (Mil.Yen) (4)	Share of Corporate Giving (%) (3)/(4)X100
	Corporate Research Grants (Mil.Yen) (1)	Research Contracts Number	Research Contracts Amount (Mil.Yen) (2)	Total (Mil.Yen) (1)+(2) =(3)		
1974	-	882	1,028	1,028	355,944	0.3
1975	4,400	906	1,305	5,705	406,546	1.4
1976	4,600	1,093	1,345	5,945	460,864	1.3
1977	5,500	1,164	1,444	6,944	531,488	1.3
1978	6,600	1,040	1,742	8,342	592,825	1.4
1979	8,100	1,130	1,957	10,057	637,991	1.6
1980	10,200	1,241	2,178	12,378	681,751	1.8
1981	11,700	1,202	2,255	13,955	734,569	1.9
1982	13,200	1,238	2,369	15,569	718,349	2.2
1983	15,000	1,286	2,603	17,603	722,633	2.4
1984	18,300	1,294	2,806	21,106	777,021	2.7
1985	22,400	1,700	3,488	25,888	770,797	3.4

Source:
MOESC, Annual Report, various years.

APPENDIX TABLES C

Student Aid and Student Living

TABLE C-1

Student Aid Programs by Source, 1984

Type and Control of Enrolling Institution	All Sources	Japan Scholarship Foundation	Non-J.S.F. Sources				
			Local Governments	Colleges and Universities	Foundations	Corporations	Individuals e.t.c.
NUMBER OF RECIPIENTS							
Number (persons)							
Graduate	30,552	25,698	200	2,212	2,201	204	37
Under-Graduate							
Four-Year	296,842	227,333	15,354	19,579	30,643	2,371	1,562
Two-Year	24,437	17,785	2,251	2,126	2,122	97	56
Technical Colleges 1)	13,830	9,935	1,450	25	2,036	352	32
Percent Distribution (%)							
Graduate	100.0	84.1	0.7	7.2	7.2	0.7	0.1
Under-Graduate							
Four-Year	100.0	76.6	5.2	6.6	10.3	0.8	0.5
Two-Year	100.0	72.8	9.2	8.7	8.7	0.4	0.2
Technical Colleges 1)	100.0	71.8	10.5	0.2	14.7	2.5	0.2
TOTAL AMOUNT OF AID							
Amount (million Yen)							
Graduate	21,444	19,513	90	682	1,052	85	22
Under-Graduate							
Four-Year	79,568	63,917	2,939	5,311	5,630	1,151	620
Two-Year 2)	4,528	3,327	402	471	278	43	7
Technical Colleges 1)	2,879	2,173	152	4	366	182	2
Percent Distribution (%)							
Graduate	100.0	91.0	0.4	3.2	4.9	0.4	0.1
Under-Graduate							
Four-Year	100.0	80.3	3.7	6.7	7.1	1.4	0.8
Two-Year	100.0	73.5	8.9	10.4	6.1	0.9	0.2
Technical Colleges 1)	100.0	75.5	5.3	0.1	12.7	6.3	0.1
RECIPIENTS OF NON-J.S.F. AID BY FORM (persons)							
Number of persons							
All	242,777		97,974	34,665	97,364	5,819	6,955
Grant	89,532		36,975	15,944	30,073	2,588	3,952
Loan	128,184		51,650	9,698	63,834	454	2,548
Grant and Loan	25,061		9,349	9,023	3,457	2,777	455
Percent Distribution (%)							
All	100.0		100.0	100.0	100.0	100.0	100.0
Grant	36.9		37.7	46.0	30.9	44.5	56.8
Loan	52.8		52.7	28.0	65.6	7.8	36.6
Grant and Loan	10.3		9.5	26.0	3.6	47.7	6.5

Sources:
MOESC, Report of the SY 1983 Survey on Scholarship Programs, Tables D, E and G.
Japan Scholarship Foundation, FY 1983 Annual Report, p.9.

Notes:
1) Includes students at the secondary level (1st through 3rd grades).
2) The amount for J.S.F. includes only the loans made to private two-year institutions.

TABLE C-2

Japan Scholarships Foundation Loan Programs, FY 1986

	Category I Loans		Category II Loans		Category II Supplement		
	living At Home	Out of Home	living At Home	Out of Home	Medicine 1)	Medicine 1)	Pharma-cology
INTEREST RATE (percent per annum)	0.0	0.0	3.0	3.0	6.5	6.5	6.5
MONTHLY AMOUNT OF LOAN (Yen)							
Graduate Students							
Master's Courses	69,000	-	-	-	-	-	-
Doctor's Courses	80,000	-	-	-	-	-	-
Under-Graduate							
Four-Year Institutions							
National and Local	26,000	32,000	26,000	32,000	-	-	-
Private 2)	35,000	45,000	35,000	45,000	40,000	80,000	20,000
Two-Year Institutions							
National and Local	26,000	32,000	26,000	32,000	-	-	-
Private	34,000	41,000	34,000	41,000	-	-	-
Technical Colleges							
National and Local	12,000	13,500	-	-	-	-	-
Private	23,000	41,000	-	-	-	-	-
Special Training Schools 3)							
National and Local	26,000	32,000	-	-	-	-	-
Private	34,000	41,000	-	-	-	-	-
ANNUAL AMOUNT IN U.S.$ EQUIVALENT (U.S.$ 1 = 145 Yen) 4)							
Graduate Students							
Master's Courses	5,790	-	-	-			
Doctor's Courses	6,713	-	-	-			
Four-Year Institutions							
National and Local	2,182	2,685	2,182	2,685			
Private	2,937	3,776	2,937	3,776			
Two-Year Institutions							
National and Local	2,182	2,685	2,182	2,685			
Private	2,853	3,441	2,853	3,441			

Sources:
Japan Scholarship Foundation, Outline of SY 1987 Programs, pp,5-6.

Notes:
1) Students in Medicine or Dentistry may apply for either 40,000 or 80,000 Yen of Category II Loans in addition to the regular loans. Students in Pharmacology may apply for additional 20,000 Yen.
2) The same monthly rate applies to Correponding Courses Students.
3) Post-secondary courses only.
4) Average conversion rate for 1987.

TABLE C-3

Recipients and Total Amount of the J.S.F. Loans, FY 1986

	Category I Loans		Category II Loans		All	
	Number (persons)	Total Amount (Million Yen)	Number (persons)	Total Amount (Million Yen)	Number (persons)	Total Amount (Million Yen)
NUMBER AND AMOUNT						
Graduate Students	25,260	21,029	-	-	25,260	21,029
Master's	14,210	11,083	-	-	14,210	11,083
Doctor's	1,105	9,945	-	-	1,105	9,945
Undergraduates in Four-Year Institutions						
all	199,938	70,198	54,000	21,400	253,938	91,598
National and Local	103,384	29,482	15,000	4,300	118,384	33,782
Private	96,554	40,716	39,000	17,100	135,554	57,816
Undergraduates in Two-Year Institutions 1)	9,305	3,562	4,000	1,500	13,305	5,062
Correspondence Courses	375	24	-	-	375	24
Technical Colleges 2)	12,124	2,385	-	-	12,124	2,385
Special Training Schools 3)	3,600	1,302	-	-	3,600	1,302
TOTAL	250,602	98,500	58,000	22,900	308,602	121,400
PERCENT DISTRIBUTION						
Gruaduate	10.1	21.3	-	-	8.2	17.3
Undergraduate						
National and Local	41.3	29.9	25.9	18.8	38.4	27.8
Private	38.5	41.3	67.2	74.7	43.9	47.6
Two-Year	3.7	3.6	6.9	6.6	4.3	4.2
Correspondence Courses	0.1	0.0	-	-	0.1	0.0
Technical Colleges	4.8	2.4	-	-	3.9	2.0
Special Training Schools	1.4	1.3	-	-	1.2	1.1
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

Sources:
Japan Scholarship Foundation, FY 1986 Annual Report, p.10.
Notes:
1) Post-secondary courses only.
2) Students in private institutions only.
3) Includes loans to students at grades 1 through 3, or equivalent to high school.

TABLE C-4

Financing of the Japan Scholarship Foundation
- FY 1961-1986 -

FY	Revenue (Million Yen)				Percent Distribution			
	Total	Transfer from the General Account	Collected Repayment	Borrowing from the Fiscal Investment and Loan	Total	Transfer from the General Account	Collected Repayment	Borrowing from the Fiscal Investmen and Loan
1961	5,933	5,087	846	-	100.0	85.7	14.3	-
1962	7,100	5,900	1,200	-	100.0	83.1	16.9	-
1963	9,000	7,600	1,400	-	100.0	84.4	15.6	-
1964	10,800	8,000	2,800	-	100.0	74.1	25.9	-
1965	11,800	8,200	3,600	-	100.0	69.5	30.5	-
1966	13,000	9,600	3,400	-	100.0	73.8	26.2	-
1967	15,268	12,087	3,181	-	100.0	79.2	20.8	-
1968	16,513	13,313	3,200	-	100.0	80.6	19.4	-
1969	16,812	14,056	2,756	-	100.0	83.6	16.4	-
1970	18,761	15,134	3,627	-	100.0	80.7	19.3	-
1971	20,353	15,312	5,041	-	100.0	75.2	24.8	-
1972	25,094	20,276	4,818	-	100.0	80.8	19.2	-
1973	27,954	22,881	5,073	-	100.0	81.9	18.1	-
1974	31,921	26,625	5,296	-	100.0	83.4	16.6	-
1975	38,995	32,954	6,041	-	100.0	84.5	15.5	-
1976	45,112	37,758	7,354	-	100.0	83.7	16.3	-
1977	51,245	43,110	8,135	-	100.0	84.1	15.9	-
1978	61,328	51,168	10,160	-	100.0	83.4	16.6	-
1979	75,350	62,825	12,525	-	100.0	83.4	16.6	-
1980	92,480	77,298	15,182	-	100.0	83.6	16.4	-
1981	103,550	87,305	16,245	-	100.0	84.3	15.7	-
1982	110,353	87,305	23,048	-	100.0	79.1	20.9	-
1983	111,790	86,787	25,003	-	100.0	77.6	22.4	-
1984	118,445	82,235	29,710	6,500	100.0	69.4	25.1	5.5
1985	127,895	78,715	34,080	15,100	100.0	61.5	26.6	11.8
1986	136,770	74,186	39,309	22,900	100.0	54.2	28.7	16.7

Source:

Japan Scholarship Foundation, Annual Report, various years.

TABLE C-5

J.S.F. Loans Recipients Relative to Total Enrollment, FY 1971-1986

FY	Type of Enrolling Institution										
	Graduate School	Four-Year Institutions					Two-Year Institutions				
		Category I			Category II	Total	Category I			Category II	Total
		Regular	Special	Total			Reg.	Spc.	Total		
NUMBER OF RECIPIENTS (persons)											
1971	20,989	79,969	65,165	145,134	-	145,134	11,137	2,467	13,604	-	13,604
1972	21,909	80,326	65,363	145,689	-	145,689	10,017	2,552	12,569	-	12,569
1973	22,106	81,078	67,666	148,744	-	148,744	9,711	2,853	12,564	-	12,564
1974	21,609	81,131	69,539	150,670	-	150,670	10,032	3,091	13,123	-	13,123
1975	22,801	81,298	74,740	156,038	-	156,038	10,174	3,134	13,308	-	13,308
1976	23,308	81,185	80,481	161,666	-	161,666	9,962	3,564	13,526	-	13,526
1977	23,488	78,851	86,956	165,807	-	165,807	9,779	3,966	13,745	-	13,745
1978	23,475	75,389	93,687	169,076	-	169,076	10,183	4,247	14,430	-	14,430
1979	23,982	72,831	102,460	175,291	-	175,291	10,258	5,079	15,337	-	15,337
1980	24,142	71,661	110,788	182,449	-	182,449	10,246	5,949	16,195	-	16,195
1981	24,478	69,496	117,562	187,058	-	187,058	10,126	6,253	16,379	-	16,379
1982	24,842	70,666	121,671	192,337	-	192,337	10,223	6,852	17,075	-	17,075
1983	25,254	70,103	122,805	192,908	-	192,908	10,541	7,009	17,550	-	17,550
1984	25,489	-	-	214,880	9,920	224,800	-	-	17,048	1,327	18,375
1985	25,415	-	-	191,646	35,350	226,996	-	-	15,679	5,712	21,391
1986	25,869	-	-	197,029	56,026	253,055	-	-	15,270	7,182	22,452
PERCENT SHARE IN ALL ENROLLED STUDENTS (%)											
1971	50.4	5.6	4.6	10.2	-	10.2	4.0	0.9	4.9	-	4.9
1972	49.0	5.4	4.4	9.8	-	9.8	3.5	0.9	4.4	-	4.4
1973	47.9	5.2	4.4	9.6	-	9.6	3.1	0.9	4.1	-	4.1
1974	46.6	5.0	4.3	9.3	-	9.3	3.0	0.9	4.0	-	4.0
1975	47.0	4.8	4.4	9.3	-	9.3	2.9	0.9	3.8	-	3.8
1976	44.9	4.7	4.6	9.3	-	9.3	2.7	1.0	3.7	-	3.7
1977	44.1	4.4	4.9	9.3	-	9.3	2.6	1.1	3.7	-	3.7
1978	44.1	4.2	5.2	9.3	-	9.3	2.7	1.1	3.8	-	3.8
1979	45.0	4.1	5.7	9.8	-	9.8	2.7	1.4	4.1	-	4.1
1980	44.7	4.0	6.2	10.2	-	10.2	2.8	1.6	4.4	-	4.4
1981	44.0	3.9	6.7	10.6	-	10.6	2.7	1.7	4.4	-	4.4
1982	42.4	4.0	6.9	10.9	-	10.9	2.7	1.8	4.6	-	4.6
1983	40.7	4.0	6.9	10.9	-	10.9	2.8	1.8	4.6	-	4.6
1984	38.8	-	-	12.1	0.6	12.6	-	-	4.5	0.3	4.8
1985	36.5	-	-	10.8	2.0	12.8	-	-	4.2	1.5	5.8
1986	34.8	-	-	10.9	3.1	14.0	-	-	3.9	1.8	5.7

Sources:
Japan Scholarship Foundation, Annual Report, various years.
MOESC, Fundamental School Survey, Higher Education, various years.

TABLE C-6

Estimated Loan-Tuition Gap, SY 1971-1986 -

SY	National and Municipal Institutions					Private Institutions				
	Annual Amount of Loan (1000 Yen)				Average Direct Cost 2) (1000Yen)	Annual Amount of Loan (1000 Yen)				Average Direct Cost 2 (1000Yen
	Living in Home		Living out Home			Living in Home		Living out Home		
	General 1)	Special	General 1)	Special		General 1)	Special	General 1)	Special	
AMOUNT OF LOANS AND DIRECT COSTS										
1971	36	72	36	120	16	60	108	60	180	145
1972	72	96	72	144	22	96	132	96	204	159
1973	72	96	72	144	32	96	132	96	204	169
1974	72	96	72	144	38	96	132	96	204	190
1975	72	96	72	144	55	132	180	132	276	232
1976	132	156	132	216	63	144	180	144	276	275
1977	132	156	132	216	87	168	204	168	312	327
1978	180	204	180	276	101	204	228	204	348	400
1979	180	204	180	276	126	324	348	324	468	454
1980	216	240	216	312	146	324	348	324	468	508
1981	216	240	216	312	168	324	348	324	468	565
1982	216	240	216	312	184	324	348	324	468	623
1983	216	240	216	312	203	324	348	324	468	671
1984	264	-	336	-	241	372	-	492	-	711
1985	264	-	336	-	241	372	-	492	-	753
LOAN-TUITION GAP IN 1985 REAL PRICE - Negative Numbers in Parenthesis										
1971	50	141	50	264		(217)	(94)	(217)	89	
1972	122	180	122	297		(154)	(66)	(154)	109	
1973	87	139	87	244		(159)	(81)	(159)	76	
1974	60	103	60	187		(166)	(102)	(166)	24	
1975	26	64	26	139		(157)	(82)	(157)	69	
1976	99	133	99	220		(188)	(136)	(188)	2	
1977	60	92	60	172		(211)	(163)	(211)	(20)	
1978	102	132	102	224		(250)	(220)	(250)	(66)	
1979	67	96	67	185		(161)	(132)	(161)	17	
1980	80	107	80	190		(210)	(183)	(210)	(45)	
1981	52	79	52	157		(262)	(236)	(262)	(105)	
1982	34	59	34	136		(317)	(292)	(317)	(164)	
1983	13	38	13	114		(362)	(337)	(362)	(212)	
1984	23	-	97	-		(346)	-	(224)	-	
1985	23	-	95	-		(381)	-	(261)	-	

Sources:
Japan Scholarship Foundation, Annual Report, various years; MOESC, Basic School Survey, various years; MOESC, Survey on the Status of Private School Finances, various years; and Japan Statistical Yearbook, various years.

Note:
1) "General" refers to Category I General until 1983; both Categories I and II (same amount) afterwards
2) Average direct costs for students were estimated as the total student charges divided by the total number of students.

TABLE C-7

Proportion of Scholarship Recipients by Family Income, 1984

(a) PROPORTION OF SCHOLARHIP RECIPIENTS BY FAMILY INCOME (%)
Full-Time Under-Graduate Students in Four-Year Institutions

	Family Income Class (Annual Income in Million Yen)							
	- 2.0	2.0-3.0	3.0-4.0	4.0-5.0	5.0-6.0	6.0-7.0	7.0-	All
Students in National Institutions								
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Receiving Scholarship	76.6	73.7	60.8	41.4	27.9	13.0	5.8	33.4
Not Receiving								
Applied but was not Accepted	0.6	3.0	3.9	5.5	7.5	8.5	5.9	5.5
Needs One but Did Not Apply	14.9	16.0	22.6	29.1	33.5	38.4	31.9	28.7
No Need	8.0	7.3	12.7	24.0	31.1	40.1	56.4	32.4
Students in Local Institutions								
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Receiving Scholarship	62.3	69.6	50.6	37.2	17.9	11.7	4.3	27.8
Not Receiving								
Applied but was not Accepted	4.2	4.3	3.0	5.8	8.4	8.5	7.4	6.4
Needs One but Did Not Apply	15.8	15.3	24.6	27.6	33.9	33.3	23.7	26.1
No Need	17.7	10.9	21.8	29.4	39.8	46.5	64.5	39.7
Students in Private Institutions								
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Receiving Scholarship	32.4	57.1	40.1	28.4	14.1	10.4	4.5	17.4
Not Receiving								
Applied but was not Accepted	3.0	4.2	3.0	4.5	4.3	4.1	2.6	3.4
Needs One but Did Not Apply	19.9	21.1	26.8	29.9	32.8	29.8	20.9	25.4
No Need	44.7	17.6	30.1	37.1	48.7	55.7	71.9	53.8

(b) TYPES OF RECEIVED SCHOLARSHIPS (%)
Full-Time Under-graduate Students in Four-Year Institutions

	J.S.F. Loans Only	Others Only	Both	Total
National Institutions	83.3	9.5	7.2	100
Local Institutions	82.5	11.1	6.4	100
Private Institutions	70.5	21.4	8.1	100
All	75.6	16.7	7.7	100

Source:
MOECS, Report of the 1984 Student Living Survey, Tables K-1 and L.

TABLE C-8

Averaged Income and Expenditure of Students, 1972-1984
- Full-Time Under-Graduate Students in Four-Year Institutions -

Year	Income						Expenditure				Real Price Index of Expenditure (1972=100)
	Annual Amount (1000 Yen)	Distribution by Source (%)					Annual Amount (1000 Yen)	Distribution (%)			
		Total	Family	Student Aid	Part-Time Work	Others		Total	Tuition	Others	
STUDENTS IN NATIONAL INSTITUTIONS											
Living in Home											
1972	226	100.0	53.6	8.9	35.6	1.9	214	100.0	7.5	92.5	100.0
1974	343	100.0	52.1	8.5	37.7	1.6	324	100.0	9.7	90.3	109.1
1976	457	100.0	53.1	7.5	38.3	1.1	426	100.0	11.7	88.3	117.3
1978	578	100.0	53.0	7.1	36.6	3.2	516	100.0	17.9	82.1	126.8
1980	683	100.0	56.0	7.5	35.2	1.2	620	100.0	22.0	78.0	136.0
1982	794	100.0	54.3	8.5	35.8	1.4	716	100.0	23.2	76.8	146.1
1984	847	100.0	52.7	7.5	38.3	1.5	775	100.0	25.4	74.6	151.8
Living out of Home											
1972	374	100.0	72.6	11.9	14.6	0.8	369	100.0	4.2	95.8	100.0
1974	558	100.0	73.0	9.9	16.2	0.9	548	100.0	5.5	94.5	106.9
1976	731	100.0	75.7	8.3	15.5	0.6	707	100.0	6.6	93.4	112.9
1978	901	100.0	75.7	7.8	15.5	1.1	864	100.0	10.2	89.8	123.0
1980	1,088	100.0	75.7	9.1	14.5	0.7	1,005	100.0	12.5	87.5	127.8
1982	1,236	100.0	73.8	9.0	16.0	1.2	1,151	100.0	13.6	86.4	136.0
1984	1,280	100.0	74.2	7.8	17.2	0.8	1,232	100.0	14.9	85.1	139.8
STUDENTS IN PRIVATE INSTITUTIONS											
Living in Home											
1972	352	100.0	72.9	2.5	22.8	1.8	350	100.0	34.8	65.2	100.0
1974	484	100.0	68.3	1.9	27.4	2.3	488	100.0	32.7	67.3	100.1
1976	640	100.0	72.1	2.6	24.2	1.1	635	100.0	38.1	61.9	106.6
1978	797	100.0	72.2	2.3	24.4	1.1	778	100.0	42.9	57.1	116.5
1980	969	100.0	70.3	3.6	25.1	1.0	953	100.0	44.0	56.0	127.6
1982	1,233	100.0	71.4	3.5	22.4	2.7	1,082	100.0	46.6	53.4	134.4
1984	1,273	100.0	70.7	3.1	24.4	1.7	1,170	100.0	49.9	50.1	139.7
Living out of Home											
1972	514	100.0	82.1	3.9	12.8	1.1	522	100.0	24.0	76.0	100.0
1974	715	100.0	80.1	3.2	15.1	1.6	728	100.0	22.0	78.0	100.4
1976	958	100.0	83.1	3.5	12.2	1.2	950	100.0	25.6	74.4	107.2
1978	1,145	100.0	82.5	4.0	12.3	1.1	1,141	100.0	28.8	71.2	114.8
1980	1,390	100.0	80.2	5.7	12.9	1.2	1,380	100.0	31.1	68.9	124.1
1982	1,671	100.0	79.7	5.8	12.3	2.3	1,588	100.0	33.8	66.2	132.6
1984	1,808	100.0	80.7	5.4	12.9	1.0	1,745	100.0	37.3	62.7	139.9

Source:
MOESC, Report of Student Living Survey, various years.

TABLE C-9

Estimated Distribution of Students by Family Income, 1970-1984

Year	Percent Distribution of Students					
	Total	Quintile Family Income Class				
		I	II	III	IV	V
National Institutions						
1970	100.0	23.0	20.8	20.9	15.9	19.4
1972	100.0	28.6	21.6	17.2	14.0	18.6
1974	100.0	18.3	18.1	21.2	21.1	21.3
1976	100.0	19.5	19.4	20.4	20.7	20.0
1978	100.0	22.0	19.0	18.9	19.1	21.0
1980	100.0	23.8	19.9	16.9	18.6	20.8
1982	100.0	25.9	19.9	16.9	18.8	18.5
1984	100.0	24.4	17.8	17.5	19.6	20.6
Municipal						
1970	100.0	15.3	19.1	19.1	19.6	26.9
1972	100.0	22.1	20.3	18.8	15.3	23.5
1974	100.0	12.3	16.5	18.4	23.0	29.8
1976	100.0	18.2	18.1	20.5	22.0	21.2
1978	100.0	18.4	19.1	22.3	19.1	21.1
1980	100.0	21.0	20.8	18.1	20.0	20.1
1982	100.0	23.2	20.6	18.7	18.6	18.9
1984	100.0	22.8	20.0	18.6	18.9	19.7
Private						
1970	100.0	8.1	13.2	19.1	20.9	38.7
1972	100.0	14.0	17.1	16.9	17.5	34.5
1974	100.0	7.6	12.2	17.6	25.2	37.1
1976	100.0	9.5	13.2	20.7	22.6	34.0
1978	100.0	11.1	16.8	19.9	20.5	31.7
1980	100.0	15.6	17.5	16.0	20.3	30.6
1982	100.0	16.2	17.6	17.0	19.9	29.3
1984	100.0	17.2	15.1	17.1	19.7	30.9
All Institutions						
1970	100.0	11.6	15.1	19.5	19.8	34.0
1972	100.0	17.2	18.3	16.9	16.7	30.9
1974	100.0	10.3	13.5	18.3	24.3	33.6
1976	100.0	11.8	14.6	20.6	22.2	30.8
1978	100.0	13.5	17.2	19.8	20.2	29.3
1980	100.0	17.5	18.1	16.3	19.9	28.2
1982	100.0	18.6	18.2	17.0	19.6	26.6
1984	100.0	18.9	15.9	17.3	19.7	28.2

Source:
MOESC, Report of the Student Living Survey, various years.